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**ERBE/NOAA-9 Observations
For the FIRE/SRB Wisconsin Experiment Region
From October 14 Through October 31, 1986**

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and Robert F. Arduini**

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by

Charles H. Whitlock*, Lawrence H. Hoffman*, and Robert F. Arduini**

SUMMARY

Tables are presented which show ERBE/NOAA-9 radiances, resolution size, and pixel location for the FIRE/SRB Wisconsin experiment region from October 1 through October 31, 1986. Also presented is an analysis of the ERBE point spread function used to estimate pixel resolution size for the scanner instrument.

INTRODUCTION

A field experiment was conducted in Wisconsin during October 1986 for purposes of both intensive cirrus-cloud measurements and Surface Radiation Budget (SRB) algorithm validation activities. The cirrus-cloud measurements were part of the First ISCCP (International Satellite Cloud Climatology Project) Regional Experiment (FIRE) as described by Starr¹. The algorithm validation activity was the first experiment of an SRB algorithm intercomparison program based on scientific recommendations from Suttles and Ohring². Both the FIRE and SRB experiments desire data products from the Earth Radiation Budget Experiment (ERBE) instrument on board the NOAA-9 spacecraft. It is the purpose of this document to present that data in the central Wisconsin region from 42.7° to 45.2° North latitude and 269° to 272° East longitude for October 1986.

DATA DESCRIPTION

Table 1 lists scanner data from the ERBE/NOAA-9 system. Column 1 is the day in October of 1986. Columns 2 and 3 are the hours and minutes in GMT time. Columns 4 and 5 are the North latitude and East longitude location of the effective ERBE pixel on the Earth surface. The values given are for the centroid of the ERBE scanner point spread function (PSF). See figures A1 and A2 as well as table A1 in the appendix for a more complete description of ERBE scanner PSF characteristics. Column 6 is the view zenith angle relative to the pixel centroid location on the surface. Columns 7 and 8 give approximate pixel length and width values in kilometers for the instrument response (0.01) which includes 94.1 percent of the total radiance observed by the instrument. Pixel

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size is a function of spacecraft altitude and view zenith angle as well as PSF response. The ERBE scanner nadir-view pixel size is approximately 133x77 km for NOAA-9. (See table A1 and figure A1 in the appendix to estimate pixel dimensions for other radiance criteria.) Columns 9 and 11 are filtered shortwave (SW) and longwave (LW) radiance values ($\text{W m}^{-2} \text{ sr}^{-1}$) as measured by the scanner instrument. Final unfiltered radiances ($\text{W m}^{-2} \text{ sr}^{-1}$) are given in columns 10 and 12 which are the result of spectral corrections^{3,4} to obtain true top of atmosphere values.

APPENDIX

Figure A1 shows ERBE scanner response (known as the point spread function) relative to the instrument optical axis in both the scan and alongtrack directions. The centroid of the point spread function is 2.85° offset from the instrument optical axis in the scan direction because of electronic filtering in combination with a high scan rate to obtain high radiometric accuracy. Figure A2 shows the point spread function in a 3-dimensional view. The footprint is neither round nor rectangular because the instrument aperture was in the shape of a six-sided clipped diamond in order to reduce aliasing both along and normal to the scan direction⁵. The total radiance received by the instrument is represented by the volume of the 3-dimensional point spread function including the tails which spread over a large angular range. Usually, the effective size of a scanner pixel is defined as that which matches a specified response level which contains most of the total radiance seen by the instrument. For ERBE, response levels for various radiance percentages are given in the following table:

Table A1.
Radiance Percentage for Various Instrument Response Levels

| RESPONSE LEVEL | PERCENT OF TOTAL RADIANCE |
|----------------|------------------------------|
| 0.90 | 19.5 |
| 0.80 | 30.0 |
| 0.70 | 43.7 |
| 0.60 | 50.8 |
| 0.50 | 62.8 |
| 0.40 | 69.5 |
| 0.30 | 77.5 |
| 0.20 | 84.3 |
| 0.10 | 88.9 |
| 0.05 | 92.0 |
| 0.02 | 93.3 |
| 0.01 | 94.1 |
| 0.005 | 95.9 |
| 0.002 | 98.6 |
| 0.001 | 99.5 |

If one wishes to know the region from which 94.1 percent of the scanner signal originates, the above listing indicates that a

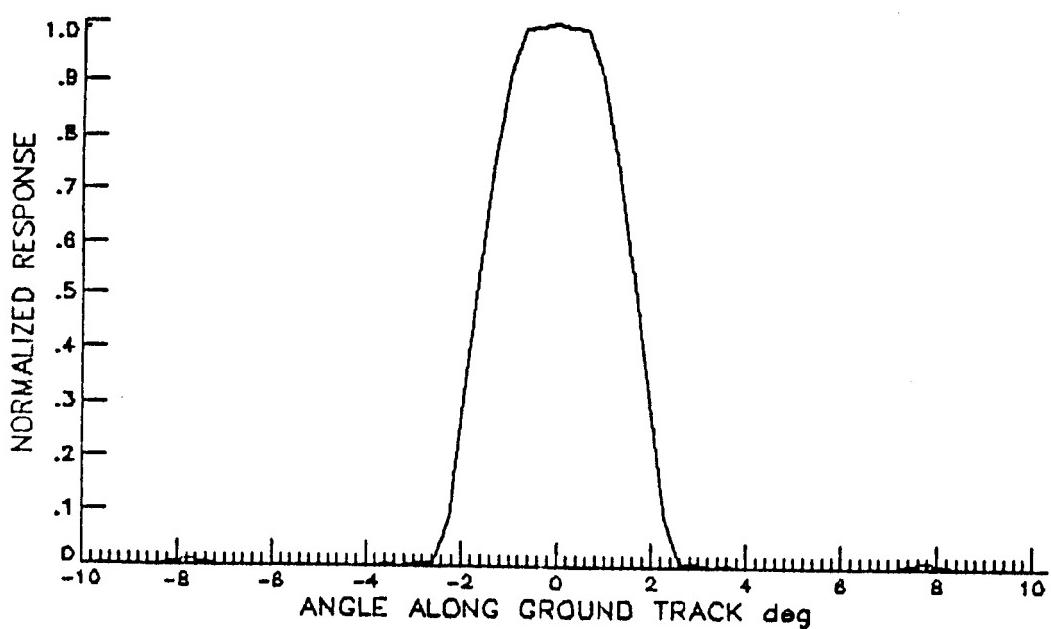
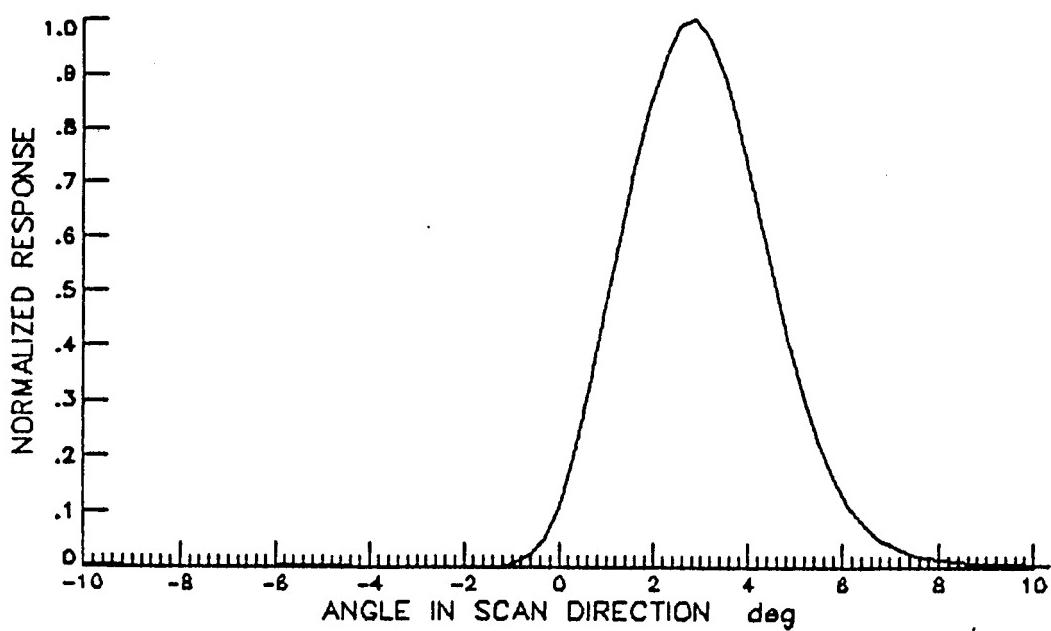


Figure A1. ERBE scanner point spread function.

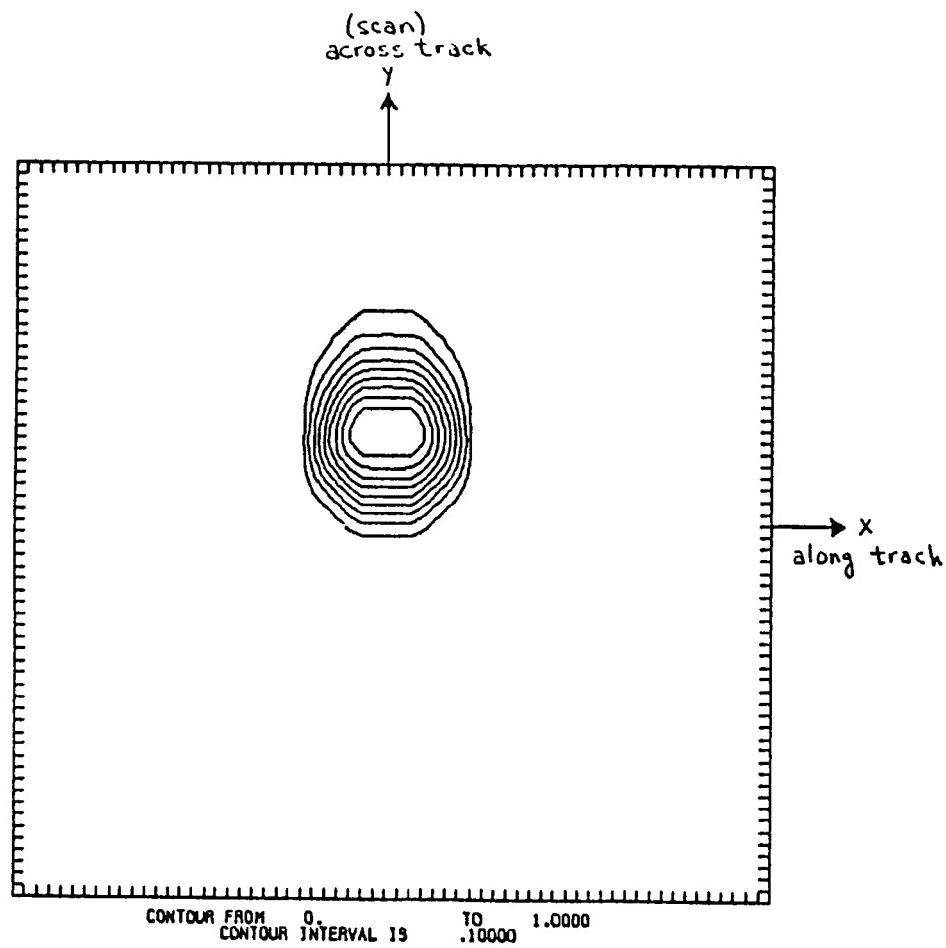
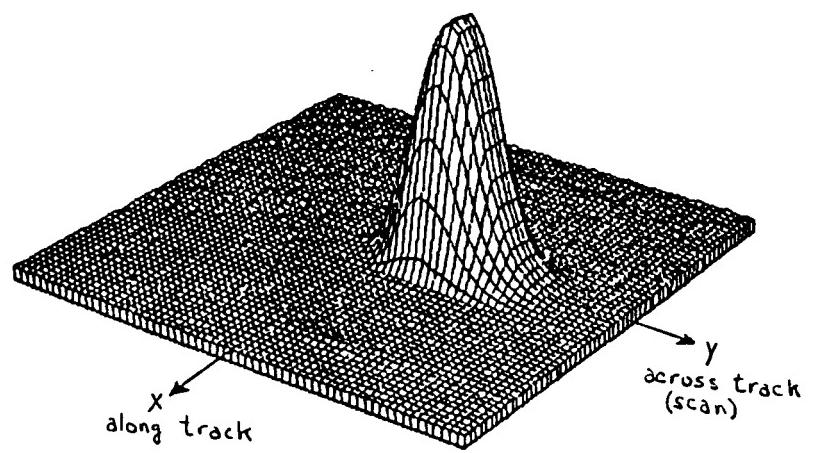


Figure A2. Additional views of ERBE scanner point spread function.

normalized response level of 0.01 is required. Figure A1 indicates that the view angle is approximately from -0.7° to $+8.7^\circ$ in the scan direction and $\pm 2.6^\circ$ in the along track direction. Note from figure A1 that the centroid (2.85°) is not in the center of the pixel in the scan direction. If one now considers the NOAA-9 orbit altitude to be 850 km, trigonometry can be used to estimate that the ERBE/NOAA-9 pixel size is approximately 133x77 km at the subsatellite point and grows larger as the scan angle increases as shown in the tables. The same procedure can be used to estimate pixel sizes for other radiance percentages and satellite altitudes. For example, it is customary to compare instrument optics in terms of the 50 percent response criteria. For the ERBE/NOAA-9, the 50 percent response criteria corresponds to a 53x50 km pixel at the subsatellite point. That size pixel contains only 62.8 percent of the total radiance being received by the instrument, however. Caution is required when defining the surface region being observed by satellite instruments.

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Table 1. ERBE/NOAA-9 Data

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|----|---|-------|--------|-------|------|------|-------|--------|-------|-------|
| 14 | 20 | 8 | 42.90 | 271.66 | 8.99 | 138 | 79 | 49.28 | 84.68 | 37.09 | 66.60 |
| 14 | 20 | 8 | 42.83 | 271.24 | 11.52 | 139 | 79 | 54.71 | 94.06 | 37.06 | 66.27 |
| 14 | 20 | 8 | 42.76 | 270.82 | 14.05 | 140 | 79 | 59.51 | 102.35 | 36.59 | 65.33 |
| 14 | 20 | 8 | 43.14 | 271.60 | 8.82 | 138 | 79 | 56.83 | 97.71 | 36.71 | 65.54 |
| 14 | 20 | 8 | 43.07 | 271.18 | 11.35 | 139 | 79 | 54.91 | 94.41 | 37.03 | 65.87 |
| 14 | 20 | 8 | 42.99 | 270.76 | 13.88 | 140 | 79 | 55.57 | 95.53 | 36.83 | 65.79 |
| 14 | 20 | 8 | 42.91 | 270.33 | 16.41 | 142 | 79 | 59.44 | 102.23 | 36.52 | 65.19 |
| 14 | 20 | 8 | 42.83 | 269.89 | 18.96 | 144 | 79 | 55.51 | 95.43 | 37.46 | 66.48 |
| 14 | 20 | 8 | 42.75 | 269.44 | 21.51 | 146 | 79 | 46.07 | 79.14 | 38.37 | 68.50 |
| 14 | 20 | 8 | 43.43 | 271.92 | 6.27 | 137 | 79 | 64.25 | 110.53 | 36.07 | 64.14 |
| 14 | 20 | 8 | 43.37 | 271.51 | 8.79 | 138 | 79 | 59.80 | 102.84 | 36.96 | 65.75 |
| 14 | 20 | 8 | 43.29 | 271.09 | 11.32 | 139 | 79 | 59.43 | 102.20 | 36.85 | 65.64 |
| 14 | 20 | 8 | 43.22 | 270.67 | 13.85 | 140 | 79 | 60.67 | 104.35 | 36.81 | 65.31 |
| 14 | 20 | 8 | 43.14 | 270.24 | 16.38 | 142 | 79 | 61.23 | 105.32 | 36.68 | 64.99 |
| 14 | 20 | 8 | 43.06 | 269.80 | 18.93 | 144 | 79 | 58.13 | 99.96 | 37.10 | 65.91 |
| 14 | 20 | 8 | 42.98 | 269.35 | 21.48 | 146 | 79 | 47.03 | 80.80 | 38.36 | 68.16 |
| 14 | 20 | 8 | 43.66 | 271.82 | 6.36 | 137 | 79 | 60.66 | 104.32 | 36.34 | 65.87 |
| 14 | 20 | 8 | 43.59 | 271.40 | 8.88 | 138 | 79 | 63.31 | 108.89 | 36.36 | 65.93 |
| 14 | 20 | 8 | 43.52 | 270.98 | 11.40 | 139 | 79 | 65.65 | 112.93 | 36.42 | 65.62 |
| 14 | 20 | 8 | 43.45 | 270.56 | 13.93 | 140 | 79 | 67.00 | 115.26 | 36.30 | 65.69 |
| 14 | 20 | 8 | 43.37 | 270.13 | 16.44 | 142 | 79 | 66.95 | 115.18 | 36.16 | 65.10 |
| 14 | 20 | 8 | 43.29 | 269.69 | 18.99 | 144 | 79 | 62.88 | 108.16 | 36.67 | 66.03 |
| 14 | 20 | 8 | 43.20 | 269.24 | 21.54 | 146 | 79 | 49.99 | 85.91 | 38.10 | 68.69 |
| 14 | 20 | 8 | 43.89 | 271.74 | 6.30 | 137 | 79 | 60.62 | 104.26 | 36.04 | 65.52 |
| 14 | 20 | 8 | 43.82 | 271.32 | 3.82 | 138 | 79 | 66.38 | 114.19 | 35.70 | 64.68 |
| 14 | 20 | 8 | 43.75 | 270.90 | 11.35 | 139 | 79 | 68.38 | 117.66 | 36.29 | 65.16 |
| 14 | 20 | 8 | 43.68 | 270.47 | 13.88 | 140 | 79 | 68.46 | 117.79 | 36.34 | 65.14 |
| 14 | 20 | 8 | 43.60 | 270.04 | 16.41 | 142 | 79 | 67.13 | 115.50 | 36.21 | 65.18 |
| 14 | 20 | 8 | 43.52 | 269.60 | 18.96 | 144 | 79 | 58.12 | 99.93 | 36.98 | 66.24 |
| 14 | 20 | 8 | 43.43 | 269.14 | 21.51 | 146 | 79 | 45.14 | 77.53 | 38.33 | 69.02 |
| 14 | 20 | 8 | 44.12 | 271.65 | 6.27 | 137 | 79 | 61.04 | 104.98 | 36.16 | 64.57 |
| 14 | 20 | 8 | 44.05 | 271.23 | 8.79 | 138 | 79 | 63.82 | 109.78 | 36.09 | 64.28 |
| 14 | 20 | 8 | 43.98 | 270.81 | 11.32 | 139 | 79 | 65.69 | 113.02 | 36.41 | 64.94 |
| 14 | 20 | 8 | 43.90 | 270.38 | 13.85 | 140 | 79 | 69.54 | 119.67 | 36.72 | 65.27 |
| 14 | 20 | 8 | 43.83 | 269.95 | 16.38 | 142 | 79 | 65.84 | 113.27 | 37.02 | 65.60 |
| 14 | 20 | 8 | 43.74 | 269.50 | 18.93 | 144 | 79 | 50.29 | 86.43 | 38.05 | 67.67 |
| 14 | 20 | 8 | 43.66 | 269.05 | 21.48 | 146 | 79 | 34.09 | 58.46 | 40.01 | 71.45 |
| 14 | 20 | 9 | 44.41 | 271.94 | 3.96 | 136 | 79 | ***** | ***** | ***** | ***** |
| 14 | 20 | 9 | 44.34 | 271.52 | 6.47 | 137 | 79 | ***** | ***** | ***** | ***** |
| 14 | 20 | 9 | 44.27 | 271.10 | 8.99 | 138 | 79 | ***** | ***** | ***** | ***** |
| 14 | 20 | 9 | 44.20 | 270.68 | 11.52 | 139 | 79 | ***** | ***** | ***** | ***** |
| 14 | 20 | 9 | 44.13 | 270.25 | 14.05 | 140 | 79 | ***** | ***** | ***** | ***** |
| 14 | 20 | 9 | 44.05 | 269.82 | 16.56 | 142 | 79 | ***** | ***** | ***** | ***** |
| 14 | 20 | 9 | 43.96 | 269.37 | 19.10 | 144 | 79 | ***** | ***** | ***** | ***** |
| 14 | 20 | 9 | 44.64 | 271.87 | 3.81 | 136 | 79 | 54.66 | 93.96 | 35.53 | 64.28 |
| 14 | 20 | 9 | 44.58 | 271.46 | 6.30 | 137 | 79 | 55.71 | 95.77 | 35.73 | 64.41 |
| 14 | 20 | 9 | 44.51 | 271.04 | 8.82 | 138 | 79 | 59.08 | 101.59 | 35.57 | 64.04 |
| 14 | 20 | 9 | 44.43 | 270.61 | 11.35 | 139 | 79 | 63.80 | 109.74 | 36.15 | 65.05 |
| 14 | 20 | 9 | 44.36 | 270.18 | 13.88 | 140 | 79 | 67.30 | 115.79 | 36.64 | 65.31 |
| 14 | 20 | 9 | 44.28 | 269.75 | 16.41 | 142 | 79 | 55.06 | 94.66 | 36.94 | 66.04 |
| 14 | 20 | 9 | 44.20 | 269.30 | 18.96 | 144 | 79 | 38.21 | 65.56 | 38.41 | 68.94 |
| 14 | 20 | 9 | 44.88 | 271.81 | 3.65 | 136 | 79 | 48.91 | 84.04 | 35.21 | 64.23 |
| 14 | 20 | 9 | 44.81 | 271.39 | 6.16 | 137 | 79 | 50.06 | 86.02 | 35.32 | 64.40 |
| 14 | 20 | 9 | 44.74 | 270.97 | 8.68 | 138 | 79 | 53.18 | 91.41 | 35.34 | 64.55 |
| 14 | 20 | 9 | 44.67 | 270.54 | 11.21 | 139 | 79 | 61.21 | 105.27 | 36.00 | 65.46 |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|----|----|-------|--------|-------|------|---------|-------|--------|-------|-------|
| 14 | 20 | 9 | 44.59 | 270.11 | 13.74 | 140 | 79 | 64.81 | 111.49 | 36.40 | 65.76 |
| 14 | 20 | 9 | 44.51 | 269.67 | 16.27 | 142 | 79 | 53.74 | 92.38 | 36.79 | 66.55 |
| 14 | 20 | 9 | 44.43 | 269.22 | 18.81 | 144 | 79 | 37.23 | 63.87 | 38.43 | 69.51 |
| 14 | 20 | 9 | 45.10 | 271.66 | 3.96 | 136 | 79 | 47.02 | 80.76 | 33.95 | 62.96 |
| 14 | 20 | 9 | 45.03 | 271.24 | 6.47 | 137 | 79 | 46.07 | 79.12 | 34.50 | 63.78 |
| 14 | 20 | 9 | 44.96 | 270.82 | 8.99 | 138 | 79 | 49.09 | 84.34 | 35.31 | 65.13 |
| 14 | 20 | 9 | 44.88 | 270.39 | 11.52 | 139 | 79 | 59.51 | 102.34 | 35.63 | 65.38 |
| 14 | 20 | 9 | 44.81 | 269.96 | 14.05 | 140 | 79 | 62.67 | 107.79 | 35.86 | 65.20 |
| 14 | 20 | 9 | 44.73 | 269.52 | 16.56 | 142 | 79 | 49.14 | 84.44 | 36.94 | 66.96 |
| 14 | 20 | 9 | 44.64 | 269.07 | 19.10 | 144 | 79 | 30.41 | 52.08 | 39.02 | 71.25 |
| 14 | 20 | 9 | 45.19 | 270.75 | 8.82 | 138 | 79 | 51.66 | 88.79 | 36.34 | 65.23 |
| 14 | 20 | 9 | 45.12 | 270.32 | 11.35 | 139 | 79 | 59.23 | 101.86 | 36.31 | 64.61 |
| 14 | 20 | 9 | 45.04 | 269.89 | 13.88 | 140 | 79 | 62.49 | 107.49 | 36.19 | 64.11 |
| 14 | 20 | 9 | 44.96 | 269.44 | 16.41 | 142 | 79 | 52.26 | 89.84 | 37.44 | 66.29 |
| 14 | 20 | 9 | 45.19 | 269.37 | 16.27 | 142 | 79 | 48.49 | 83.32 | 37.35 | 66.49 |
| 15 | 19 | 57 | 42.75 | 271.72 | 23.87 | 149 | 79***** | ***** | ***** | ***** | ***** |
| 15 | 19 | 57 | 42.96 | 271.56 | 24.19 | 149 | 79 | 18.27 | 31.43 | 47.37 | 84.14 |
| 15 | 19 | 57 | 42.86 | 271.08 | 26.77 | 152 | 79 | 17.83 | 30.68 | 47.51 | 84.34 |
| 15 | 19 | 57 | 42.76 | 270.58 | 29.36 | 156 | 79 | 18.53 | 31.53 | 47.82 | 84.79 |
| 15 | 19 | 57 | 43.28 | 271.96 | 21.45 | 146 | 79 | 18.80 | 32.35 | 47.43 | 84.36 |
| 15 | 19 | 57 | 43.19 | 271.49 | 24.01 | 149 | 79 | 19.38 | 33.36 | 47.00 | 83.36 |
| 15 | 19 | 57 | 43.10 | 271.01 | 26.59 | 152 | 79 | 18.94 | 32.60 | 47.14 | 83.73 |
| 15 | 19 | 57 | 43.00 | 270.51 | 29.18 | 156 | 79 | 19.29 | 32.82 | 47.46 | 84.12 |
| 15 | 19 | 57 | 42.89 | 269.98 | 31.79 | 160 | 79 | 19.27 | 32.86 | 47.84 | 84.74 |
| 15 | 19 | 57 | 42.77 | 269.43 | 34.42 | 165 | 79 | 19.65 | 33.52 | 47.79 | 84.49 |
| 15 | 19 | 57 | 43.52 | 271.89 | 21.31 | 146 | 79 | 19.58 | 33.70 | 46.97 | 83.45 |
| 15 | 19 | 57 | 43.43 | 271.42 | 23.87 | 149 | 79 | 20.76 | 35.74 | 46.28 | 82.37 |
| 15 | 19 | 57 | 43.33 | 270.93 | 26.45 | 152 | 79 | 20.44 | 35.19 | 46.42 | 82.59 |
| 15 | 19 | 57 | 43.23 | 270.43 | 29.04 | 156 | 79 | 20.20 | 34.77 | 46.74 | 82.65 |
| 15 | 19 | 57 | 43.12 | 269.90 | 31.65 | 160 | 79 | 19.35 | 33.00 | 47.20 | 83.51 |
| 15 | 19 | 57 | 43.00 | 269.35 | 34.27 | 165 | 79 | 19.86 | 33.87 | 47.06 | 83.10 |
| 15 | 19 | 58 | 43.73 | 271.73 | 21.62 | 146 | 79 | 21.54 | 37.08 | 46.55 | 82.58 |
| 15 | 19 | 58 | 43.64 | 271.26 | 24.19 | 149 | 79 | 22.60 | 38.91 | 45.68 | 81.30 |
| 15 | 19 | 58 | 43.54 | 270.77 | 26.77 | 152 | 79 | 22.52 | 38.77 | 45.65 | 80.85 |
| 15 | 19 | 58 | 43.44 | 270.26 | 29.36 | 156 | 79 | 22.51 | 38.76 | 45.70 | 81.13 |
| 15 | 19 | 58 | 43.33 | 269.74 | 31.94 | 160 | 79 | 21.78 | 37.16 | 45.99 | 81.65 |
| 15 | 19 | 58 | 43.21 | 269.18 | 34.57 | 165 | 79 | 21.69 | 37.01 | 45.77 | 81.31 |
| 15 | 19 | 58 | 43.97 | 271.68 | 21.34 | 146 | 79 | 23.79 | 40.96 | 45.60 | 81.14 |
| 15 | 19 | 58 | 43.88 | 271.21 | 23.90 | 149 | 79 | 26.62 | 45.87 | 44.30 | 78.93 |
| 15 | 19 | 58 | 43.78 | 270.72 | 26.48 | 152 | 79 | 29.51 | 50.85 | 43.39 | 77.41 |
| 15 | 19 | 58 | 43.68 | 270.21 | 29.07 | 156 | 79 | 30.09 | 51.86 | 43.27 | 77.08 |
| 15 | 19 | 58 | 43.57 | 269.68 | 31.68 | 160 | 79 | 23.76 | 46.15 | 44.17 | 78.34 |
| 15 | 19 | 58 | 43.45 | 269.13 | 34.31 | 165 | 79 | 23.94 | 40.86 | 44.82 | 79.69 |
| 15 | 19 | 58 | 44.27 | 271.98 | 19.10 | 144 | 79 | 29.87 | 51.48 | 44.03 | 78.61 |
| 15 | 19 | 58 | 44.18 | 271.52 | 21.65 | 146 | 79 | 30.40 | 52.39 | 43.68 | 77.57 |
| 15 | 19 | 58 | 44.09 | 271.04 | 21.22 | 149 | 79 | 35.49 | 61.18 | 42.03 | 74.70 |
| 15 | 19 | 58 | 43.99 | 270.55 | 26.80 | 152 | 79 | 39.80 | 68.62 | 40.77 | 72.36 |
| 15 | 19 | 58 | 43.89 | 270.04 | 29.39 | 156 | 79 | 37.42 | 64.51 | 41.27 | 73.10 |
| 15 | 19 | 58 | 43.78 | 269.51 | 32.00 | 160 | 79 | 29.69 | 51.23 | 43.39 | 77.01 |
| 15 | 19 | 58 | 44.50 | 271.88 | 19.07 | 144 | 79 | 38.60 | 66.54 | 41.91 | 74.73 |
| 15 | 19 | 58 | 44.41 | 271.42 | 21.63 | 146 | 79 | 37.58 | 64.78 | 41.74 | 74.53 |
| 15 | 19 | 58 | 44.32 | 270.94 | 24.19 | 149 | 79 | 41.37 | 71.33 | 40.18 | 71.78 |
| 15 | 19 | 58 | 44.22 | 270.45 | 26.77 | 152 | 79 | 45.55 | 78.55 | 39.62 | 71.03 |
| 15 | 19 | 58 | 44.11 | 269.94 | 29.36 | 156 | 79 | 44.83 | 77.31 | 40.64 | 72.44 |
| 15 | 19 | 58 | 44.00 | 269.41 | 31.94 | 160 | 79 | 37.70 | 64.96 | 43.02 | 76.41 |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|----|----|-------|--------|-------|------|---------|-------|--------|-------|-------|
| 15 | 19 | 58 | 44.73 | 271.81 | 18.93 | 144 | 79***** | ***** | ***** | ***** | ***** |
| 15 | 19 | 58 | 44.64 | 271.35 | 21.45 | 146 | 79***** | ***** | ***** | ***** | ***** |
| 15 | 19 | 58 | 44.55 | 270.87 | 24.02 | 149 | 79***** | ***** | ***** | ***** | ***** |
| 15 | 19 | 58 | 44.45 | 270.38 | 26.59 | 152 | 79***** | ***** | ***** | ***** | ***** |
| 15 | 19 | 58 | 44.35 | 269.86 | 29.18 | 156 | 79***** | ***** | ***** | ***** | ***** |
| 15 | 19 | 58 | 44.23 | 269.33 | 31.79 | 160 | 79***** | ***** | ***** | ***** | ***** |
| 15 | 19 | 58 | 44.95 | 271.67 | 19.10 | 144 | 79 | 43.28 | 74.63 | 40.71 | 72.68 |
| 15 | 19 | 58 | 44.86 | 271.21 | 21.65 | 146 | 79 | 45.47 | 78.40 | 40.54 | 72.17 |
| 15 | 19 | 58 | 44.77 | 270.73 | 24.22 | 149 | 79 | 46.29 | 79.82 | 40.19 | 71.75 |
| 15 | 19 | 58 | 44.67 | 270.23 | 26.80 | 152 | 79 | 54.15 | 93.39 | 40.07 | 71.32 |
| 15 | 19 | 58 | 44.56 | 269.71 | 29.39 | 156 | 79 | 60.18 | 103.81 | 40.39 | 71.64 |
| 15 | 19 | 58 | 44.45 | 269.17 | 32.00 | 160 | 79 | 56.85 | 98.01 | 41.37 | 72.90 |
| 15 | 19 | 58 | 45.18 | 271.59 | 18.96 | 144 | 79 | 36.62 | 63.13 | 40.96 | 73.27 |
| 15 | 19 | 58 | 45.09 | 271.13 | 21.51 | 146 | 79 | 48.05 | 82.86 | 40.44 | 71.96 |
| 15 | 19 | 58 | 45.00 | 270.65 | 24.08 | 149 | 79 | 51.00 | 87.96 | 40.09 | 71.39 |
| 15 | 19 | 58 | 44.90 | 270.15 | 26.65 | 152 | 79 | 57.08 | 98.46 | 40.06 | 71.35 |
| 15 | 19 | 58 | 44.79 | 269.63 | 29.24 | 156 | 79 | 62.64 | 108.06 | 40.29 | 71.40 |
| 15 | 19 | 58 | 44.68 | 269.10 | 31.82 | 160 | 79 | 62.27 | 107.37 | 41.01 | 72.49 |
| 15 | 19 | 58 | 45.13 | 270.05 | 26.59 | 152 | 79 | 57.07 | 98.43 | 40.00 | 71.89 |
| 15 | 19 | 58 | 45.02 | 269.53 | 29.19 | 156 | 79 | 62.02 | 106.98 | 40.14 | 72.22 |
| 16 | 9 | 59 | 45.04 | 271.78 | 42.62 | 181 | 77 | -1.16 | .00 | 39.67 | 72.82 |
| 16 | 9 | 59 | 45.15 | 270.29 | 36.96 | 167 | 77 | -.45 | .00 | 42.28 | 76.86 |
| 16 | 9 | 59 | 45.00 | 270.91 | 39.60 | 173 | 77 | -.47 | .00 | 40.49 | 74.14 |
| 16 | 9 | 59 | 44.84 | 271.58 | 42.31 | 181 | 77 | -.46 | .00 | 38.51 | 71.17 |
| 16 | 9 | 59 | 45.17 | 269.10 | 32.10 | 158 | 77 | -.39 | .00 | 42.03 | 76.17 |
| 16 | 9 | 59 | 45.04 | 269.67 | 34.73 | 162 | 77 | -.38 | .00 | 41.63 | 75.86 |
| 16 | 9 | 59 | 44.91 | 270.26 | 37.38 | 168 | 77 | -.40 | .00 | 40.85 | 74.78 |
| 16 | 9 | 59 | 44.76 | 270.89 | 40.05 | 174 | 77 | -.45 | .00 | 38.71 | 71.35 |
| 16 | 9 | 59 | 44.59 | 271.57 | 42.77 | 182 | 77 | -.46 | .00 | 36.73 | 68.20 |
| 16 | 9 | 59 | 44.82 | 269.54 | 34.70 | 162 | 77 | -.49 | .00 | 39.74 | 72.90 |
| 16 | 9 | 59 | 44.68 | 270.14 | 37.35 | 168 | 77 | -.49 | .00 | 38.70 | 71.29 |
| 16 | 9 | 59 | 44.53 | 270.76 | 40.02 | 174 | 77 | -.51 | .00 | 36.91 | 68.40 |
| 16 | 9 | 59 | 44.37 | 271.44 | 42.74 | 182 | 77 | -.50 | .00 | 34.84 | 65.08 |
| 16 | 9 | 59 | 44.60 | 269.40 | 34.55 | 162 | 77 | .17 | .00 | 39.52 | 72.88 |
| 16 | 9 | 59 | 44.47 | 269.98 | 37.20 | 168 | 77 | .28 | .00 | 38.74 | 71.62 |
| 16 | 9 | 59 | 44.32 | 270.60 | 39.84 | 174 | 77 | .25 | .00 | 37.39 | 69.63 |
| 16 | 9 | 59 | 44.16 | 271.27 | 42.55 | 181 | 77 | .25 | .00 | 35.59 | 66.66 |
| 16 | 9 | 59 | 44.39 | 269.24 | 34.37 | 162 | 77 | .29 | .00 | 39.79 | 72.88 |
| 16 | 9 | 59 | 44.25 | 269.83 | 37.02 | 167 | 77 | .27 | .00 | 39.27 | 71.98 |
| 16 | 9 | 59 | 44.11 | 270.45 | 39.69 | 174 | 77 | .12 | .00 | 38.01 | 69.99 |
| 16 | 9 | 59 | 43.95 | 271.11 | 42.40 | 181 | 77 | .24 | .00 | 36.55 | 67.55 |
| 16 | 10 | 0 | 44.15 | 269.20 | 34.69 | 162 | 77***** | ***** | ***** | ***** | ***** |
| 16 | 10 | 0 | 44.01 | 269.78 | 37.34 | 168 | 77***** | ***** | ***** | ***** | ***** |
| 16 | 10 | 0 | 43.87 | 270.41 | 40.02 | 174 | 77***** | ***** | ***** | ***** | ***** |
| 16 | 10 | 0 | 43.70 | 271.07 | 42.73 | 182 | 77***** | ***** | ***** | ***** | ***** |
| 16 | 10 | 0 | 43.93 | 269.05 | 34.55 | 162 | 77 | .44 | .00 | 40.24 | 73.51 |
| 16 | 10 | 0 | 43.80 | 269.63 | 37.19 | 168 | 77 | .31 | .00 | 38.85 | 71.53 |
| 16 | 10 | 0 | 43.65 | 270.25 | 39.84 | 174 | 77 | .40 | .00 | 37.24 | 69.18 |
| 16 | 10 | 0 | 43.49 | 270.91 | 42.55 | 181 | 77 | .40 | .00 | 36.39 | 67.47 |
| 16 | 10 | 0 | 43.58 | 269.48 | 37.01 | 167 | 77 | .28 | .00 | 38.55 | 70.75 |
| 16 | 10 | 0 | 43.44 | 270.09 | 39.69 | 174 | 77 | .25 | .00 | 37.29 | 68.76 |
| 16 | 10 | 0 | 43.28 | 270.75 | 42.39 | 181 | 77 | .25 | .00 | 36.18 | 66.86 |
| 16 | 10 | 0 | 43.34 | 269.44 | 37.34 | 168 | 77 | .25 | .00 | 37.91 | 69.76 |
| 16 | 10 | 0 | 43.19 | 270.06 | 40.02 | 174 | 77 | .22 | .00 | 36.82 | 68.13 |
| 16 | 10 | 0 | 43.04 | 270.72 | 42.73 | 182 | 77 | .22 | .00 | 35.28 | 65.51 |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|----|----|-------|--------|-------|------|---------|-------|--------|-------|-------|
| 16 | 10 | 0 | 43.12 | 269.29 | 37.19 | 168 | 77 | .26 | .00 | 38.28 | 70.10 |
| 16 | 10 | 0 | 42.98 | 269.90 | 39.84 | 174 | 77 | .34 | .00 | 37.10 | 68.47 |
| 16 | 10 | 0 | 42.82 | 270.55 | 42.55 | 181 | 77 | .35 | .00 | 35.56 | 65.85 |
| 16 | 10 | 0 | 42.89 | 269.22 | 37.37 | 168 | 77 | .27 | .00 | 38.89 | 71.19 |
| 16 | 10 | 0 | 42.75 | 269.83 | 40.05 | 174 | 77 | .24 | .00 | 37.63 | 69.20 |
| 16 | 19 | 47 | 42.71 | 271.49 | 37.34 | 171 | 79 | 54.38 | 93.28 | 45.47 | 79.52 |
| 16 | 19 | 47 | 43.06 | 271.97 | 34.66 | 165 | 79***** | ***** | ***** | ***** | ***** |
| 16 | 19 | 47 | 42.93 | 271.39 | 37.31 | 171 | 79***** | ***** | ***** | ***** | ***** |
| 16 | 19 | 47 | 42.79 | 270.76 | 40.00 | 178 | 79***** | ***** | ***** | ***** | ***** |
| 16 | 19 | 47 | 43.29 | 271.90 | 34.51 | 165 | 79 | 72.81 | 125.40 | 42.82 | 75.34 |
| 16 | 19 | 47 | 43.16 | 271.31 | 37.16 | 171 | 79 | 67.94 | 116.63 | 43.96 | 77.02 |
| 16 | 19 | 47 | 43.02 | 270.69 | 39.82 | 177 | 79 | 46.22 | 79.24 | 46.18 | 80.92 |
| 16 | 19 | 47 | 42.86 | 270.02 | 42.54 | 185 | 79 | 27.27 | 46.39 | 48.29 | 84.92 |
| 16 | 19 | 47 | 43.50 | 271.72 | 34.81 | 166 | 79 | 72.89 | 125.53 | 42.72 | 75.23 |
| 16 | 19 | 47 | 43.37 | 271.13 | 37.47 | 171 | 79 | 66.95 | 114.93 | 43.77 | 76.90 |
| 16 | 19 | 47 | 43.23 | 270.49 | 40.15 | 178 | 79 | 49.02 | 84.06 | 45.73 | 80.25 |
| 16 | 19 | 47 | 43.07 | 269.82 | 42.87 | 186 | 79 | 28.41 | 48.34 | 48.19 | 84.66 |
| 16 | 19 | 47 | 43.73 | 271.64 | 34.66 | 165 | 79 | 72.24 | 124.41 | 42.73 | 75.16 |
| 16 | 19 | 47 | 43.60 | 271.05 | 37.32 | 171 | 79 | 65.95 | 113.21 | 43.61 | 76.77 |
| 16 | 19 | 47 | 43.46 | 270.42 | 40.00 | 178 | 79 | 53.71 | 92.13 | 44.95 | 79.01 |
| 16 | 19 | 47 | 43.30 | 269.74 | 42.72 | 185 | 79 | 31.67 | 53.93 | 47.60 | 84.06 |
| 16 | 19 | 47 | 43.96 | 271.54 | 34.63 | 165 | 79 | 71.62 | 123.33 | 43.10 | 76.47 |
| 16 | 19 | 47 | 43.83 | 270.94 | 37.29 | 171 | 79 | 65.07 | 112.03 | 43.63 | 77.45 |
| 16 | 19 | 47 | 43.68 | 270.31 | 39.94 | 177 | 79 | 55.78 | 95.70 | 44.80 | 79.24 |
| 16 | 19 | 47 | 43.52 | 269.64 | 42.66 | 185 | 79 | 34.20 | 58.27 | 47.36 | 84.21 |
| 16 | 19 | 47 | 44.30 | 271.95 | 32.18 | 161 | 79 | 73.74 | 126.99 | 42.52 | 75.66 |
| 16 | 19 | 47 | 44.17 | 271.38 | 34.81 | 166 | 79 | 72.24 | 124.40 | 42.55 | 76.12 |
| 16 | 19 | 47 | 44.04 | 270.78 | 37.47 | 171 | 79 | 67.03 | 115.41 | 43.17 | 76.95 |
| 16 | 19 | 47 | 43.89 | 270.15 | 40.15 | 178 | 79 | 57.76 | 99.11 | 44.09 | 78.53 |
| 16 | 19 | 47 | 43.73 | 269.46 | 42.88 | 186 | 79 | 36.57 | 62.32 | 46.64 | 83.00 |
| 16 | 19 | 47 | 44.53 | 271.87 | 32.03 | 160 | 79 | 73.97 | 127.39 | 42.79 | 75.23 |
| 16 | 19 | 47 | 44.41 | 271.30 | 34.66 | 165 | 79 | 74.47 | 128.25 | 42.83 | 75.55 |
| 16 | 19 | 47 | 44.27 | 270.70 | 37.32 | 171 | 79 | 71.49 | 123.11 | 43.36 | 76.09 |
| 16 | 19 | 47 | 44.12 | 270.06 | 40.00 | 177 | 79 | 62.80 | 107.79 | 44.01 | 77.45 |
| 16 | 19 | 47 | 43.96 | 269.38 | 42.72 | 185 | 79 | 42.31 | 72.14 | 46.30 | 81.73 |
| 16 | 19 | 47 | 44.75 | 271.76 | 32.00 | 160 | 79 | 73.69 | 126.92 | 42.77 | 75.16 |
| 16 | 19 | 47 | 44.63 | 271.19 | 34.63 | 165 | 79 | 75.62 | 130.24 | 42.81 | 75.38 |
| 16 | 19 | 47 | 44.50 | 270.59 | 37.29 | 171 | 79 | 73.83 | 127.15 | 43.25 | 75.96 |
| 16 | 19 | 47 | 44.35 | 269.96 | 39.94 | 177 | 79 | 64.20 | 110.53 | 43.90 | 77.08 |
| 16 | 19 | 47 | 44.19 | 269.28 | 42.66 | 185 | 79 | 45.60 | 77.78 | 45.93 | 81.06 |
| 16 | 19 | 47 | 44.99 | 271.71 | 31.71 | 160 | 79***** | ***** | ***** | ***** | ***** |
| 16 | 19 | 47 | 44.87 | 271.14 | 34.33 | 165 | 79***** | ***** | ***** | ***** | ***** |
| 16 | 19 | 47 | 44.73 | 270.54 | 36.99 | 170 | 79***** | ***** | ***** | ***** | ***** |
| 16 | 19 | 47 | 44.59 | 269.91 | 39.67 | 177 | 79***** | ***** | ***** | ***** | ***** |
| 16 | 19 | 47 | 44.43 | 269.23 | 42.38 | 184 | 79***** | ***** | ***** | ***** | ***** |
| 16 | 19 | 47 | 45.20 | 271.50 | 32.15 | 161 | 79 | 73.12 | 125.93 | 42.43 | 74.82 |
| 16 | 19 | 47 | 45.07 | 270.93 | 34.78 | 165 | 79 | 76.35 | 131.51 | 42.64 | 74.92 |
| 16 | 19 | 47 | 44.93 | 270.32 | 37.44 | 171 | 79 | 76.81 | 132.30 | 43.09 | 75.74 |
| 16 | 19 | 47 | 44.78 | 269.67 | 40.13 | 178 | 79 | 68.13 | 117.31 | 43.83 | 76.68 |
| 16 | 19 | 47 | 45.16 | 270.24 | 37.29 | 171 | 79 | 77.02 | 132.66 | 42.99 | 75.43 |
| 16 | 19 | 47 | 45.02 | 269.60 | 39.94 | 177 | 79 | 70.47 | 121.35 | 43.55 | 76.40 |
| 17 | 9 | 48 | 45.20 | 271.23 | 29.32 | 153 | 77 | -1.25 | .00 | 40.38 | 74.27 |
| 17 | 9 | 48 | 45.08 | 271.76 | 31.92 | 157 | 77 | -1.26 | .00 | 40.43 | 74.44 |
| 17 | 9 | 48 | 45.18 | 270.15 | 24.36 | 147 | 77 | -.60 | .00 | 41.07 | 75.57 |
| 17 | 9 | 48 | 45.07 | 270.64 | 26.94 | 150 | 77 | -.56 | .00 | 40.63 | 74.95 |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD | |
|----|---|----|-------|--------|-------|------|-------|-------|-------|-------|-------|--|
| 17 | 9 | 48 | 44.97 | 271.15 | 29.49 | 153 | 77 | -.55 | .00 | 40.58 | 74.71 | |
| 17 | 9 | 48 | 44.85 | 271.68 | 32.10 | 158 | 77 | -.56 | .00 | 40.72 | 74.89 | |
| 17 | 9 | 48 | 45.14 | 269.09 | 19.11 | 141 | 77 | .20 | .00 | 42.90 | 78.33 | |
| 17 | 9 | 48 | 45.05 | 269.54 | 21.63 | 144 | 77 | .25 | .00 | 42.70 | 77.82 | |
| 17 | 9 | 48 | 44.96 | 270.01 | 24.19 | 146 | 77 | .24 | .00 | 41.88 | 76.46 | |
| 17 | 9 | 48 | 44.86 | 270.50 | 26.76 | 149 | 77 | .16 | .00 | 41.44 | 75.84 | |
| 17 | 9 | 48 | 44.75 | 271.01 | 29.35 | 153 | 77 | .26 | .00 | 41.31 | 75.59 | |
| 17 | 9 | 48 | 44.63 | 271.54 | 31.95 | 157 | 77 | .25 | .00 | 41.53 | 75.94 | |
| 17 | 9 | 49 | 44.83 | 269.41 | 21.49 | 143 | 77 | .15 | .00 | 42.84 | 78.52 | |
| 17 | 9 | 49 | 44.74 | 269.88 | 24.05 | 146 | 77 | .15 | .00 | 42.02 | 77.14 | |
| 17 | 9 | 49 | 44.63 | 270.36 | 26.62 | 149 | 77 | .18 | .00 | 41.49 | 76.34 | |
| 17 | 9 | 49 | 44.53 | 270.87 | 29.20 | 153 | 77 | .17 | .00 | 41.36 | 75.91 | |
| 17 | 9 | 49 | 44.41 | 271.39 | 31.80 | 157 | 77 | .16 | .00 | 41.67 | 76.44 | |
| 17 | 9 | 49 | 44.29 | 271.95 | 34.43 | 162 | 77 | .19 | .00 | 41.56 | 76.24 | |
| 17 | 9 | 49 | 44.61 | 269.28 | 21.35 | 143 | 77 | .16 | .00 | 43.09 | 78.72 | |
| 17 | 9 | 49 | 44.51 | 269.75 | 23.90 | 146 | 77 | .15 | .00 | 42.27 | 77.16 | |
| 17 | 9 | 49 | 44.41 | 270.23 | 26.47 | 149 | 77 | .19 | .00 | 41.74 | 76.36 | |
| 17 | 9 | 49 | 44.31 | 270.73 | 29.06 | 153 | 77 | .18 | .00 | 41.53 | 75.94 | |
| 17 | 9 | 49 | 44.20 | 271.24 | 31.63 | 157 | 77 | .16 | .00 | 41.83 | 76.47 | |
| 17 | 9 | 49 | 44.07 | 271.79 | 34.25 | 161 | 77 | .19 | .00 | 41.91 | 76.44 | |
| 17 | 9 | 49 | 44.37 | 269.25 | 21.75 | 144 | 77 | -.30 | .00 | 43.42 | 78.76 | |
| 17 | 9 | 49 | 44.27 | 269.71 | 24.30 | 146 | 77 | -.32 | .00 | 42.51 | 77.19 | |
| 17 | 9 | 49 | 44.17 | 270.20 | 26.88 | 150 | 77 | -.30 | .00 | 41.98 | 76.57 | |
| 17 | 9 | 49 | 44.06 | 270.70 | 29.46 | 153 | 77 | -.33 | .00 | 41.68 | 75.96 | |
| 17 | 9 | 49 | 43.95 | 271.22 | 32.07 | 158 | 77 | -.36 | .00 | 42.07 | 76.49 | |
| 17 | 9 | 49 | 43.83 | 271.78 | 34.69 | 162 | 77 | -.46 | .00 | 42.05 | 76.46 | |
| 17 | 9 | 49 | 44.15 | 269.10 | 21.49 | 143 | 77 | -.64 | .00 | 43.27 | 79.02 | |
| 17 | 9 | 49 | 44.05 | 269.56 | 24.04 | 146 | 77 | -.63 | .00 | 42.36 | 77.46 | |
| 17 | 9 | 49 | 43.96 | 270.04 | 26.62 | 149 | 77 | -.59 | .00 | 41.75 | 76.49 | |
| 17 | 9 | 49 | 43.85 | 270.54 | 29.20 | 153 | 77 | -.58 | .00 | 41.36 | 75.71 | |
| 17 | 9 | 49 | 43.74 | 271.06 | 31.80 | 157 | 77 | -.59 | .00 | 41.75 | 76.24 | |
| 17 | 9 | 49 | 43.61 | 271.61 | 34.42 | 162 | 77 | -.54 | .00 | 41.82 | 76.57 | |
| 17 | 9 | 49 | 43.91 | 269.05 | 21.80 | 144 | ***** | | | | | |
| 17 | 9 | 49 | 43.82 | 269.51 | 24.36 | 147 | ***** | | | | | |
| 17 | 9 | 49 | 43.72 | 269.99 | 26.93 | 150 | ***** | | | | | |
| 17 | 9 | 49 | 43.61 | 270.49 | 29.49 | 153 | ***** | | | | | |
| 17 | 9 | 49 | 43.50 | 271.01 | 32.10 | 158 | ***** | | | | | |
| 17 | 9 | 49 | 43.38 | 271.56 | 34.72 | 162 | ***** | | | | | |
| 17 | 9 | 49 | 43.59 | 269.40 | 24.30 | 146 | 77 | .36 | .00 | 43.14 | 78.86 | |
| 17 | 9 | 49 | 43.49 | 269.88 | 26.87 | 150 | 77 | .39 | .00 | 42.70 | 78.06 | |
| 17 | 9 | 49 | 43.39 | 270.38 | 29.46 | 153 | 77 | .38 | .00 | 42.39 | 77.64 | |
| 17 | 9 | 49 | 43.27 | 270.89 | 32.07 | 158 | 77 | .37 | .00 | 42.70 | 77.99 | |
| 17 | 9 | 49 | 43.15 | 271.44 | 34.69 | 162 | 77 | .28 | .00 | 42.69 | 78.14 | |
| 17 | 9 | 49 | 43.37 | 269.27 | 24.16 | 146 | 77 | -.46 | .00 | 43.60 | 79.78 | |
| 17 | 9 | 49 | 43.27 | 269.75 | 26.73 | 149 | 77 | -.44 | .00 | 42.98 | 78.80 | |
| 17 | 9 | 49 | 43.17 | 270.24 | 29.32 | 153 | 77 | -.47 | .00 | 42.68 | 78.20 | |
| 17 | 9 | 49 | 43.05 | 270.76 | 31.92 | 157 | 77 | -.50 | .00 | 42.81 | 78.36 | |
| 17 | 9 | 49 | 42.93 | 271.30 | 34.54 | 162 | 77 | -.48 | .00 | 42.79 | 78.51 | |
| 17 | 9 | 49 | 42.80 | 271.87 | 37.19 | 168 | 77 | -.51 | .00 | 42.33 | 77.55 | |
| 17 | 9 | 49 | 43.13 | 269.21 | 24.36 | 147 | 77 | -1.27 | .00 | 43.48 | 79.59 | |
| 17 | 9 | 49 | 43.04 | 269.68 | 26.93 | 150 | 77 | -1.12 | .00 | 42.86 | 78.78 | |
| 17 | 9 | 49 | 42.93 | 270.17 | 29.52 | 153 | 77 | -1.13 | .00 | 42.47 | 78.18 | |
| 17 | 9 | 49 | 42.82 | 270.69 | 32.09 | 158 | 77 | -1.15 | .00 | 42.43 | 77.99 | |
| 17 | 9 | 49 | 42.91 | 269.07 | 24.19 | 146 | 77 | -1.25 | .00 | 43.91 | 80.08 | |
| 17 | 9 | 49 | 42.82 | 269.54 | 26.76 | 150 | 77 | -1.22 | .00 | 43.46 | 79.46 | |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|----|----|-------|--------|-------|------|---------|-------|-------|-------|-------|
| 17 | 9 | 49 | 42.71 | 270.04 | 29.34 | 153 | 77 | -1.23 | .00 | 43.16 | 78.86 |
| 17 | 19 | 36 | 44.27 | 271.96 | 42.72 | 185 | 79 | 55.36 | 95.34 | 43.25 | 75.95 |
| 17 | 19 | 36 | 44.49 | 271.85 | 42.66 | 185 | 79 | 47.32 | 81.47 | 43.59 | 77.31 |
| 17 | 19 | 36 | 44.72 | 271.77 | 42.50 | 184 | 79 | 38.34 | 65.97 | 44.11 | 78.54 |
| 17 | 19 | 36 | 44.93 | 271.59 | 42.72 | 185 | 79 | 28.92 | 49.79 | 45.00 | 80.28 |
| 17 | 19 | 37 | 45.16 | 271.51 | 42.54 | 184 | 79***** | ***** | ***** | ***** | ***** |
| 18 | 9 | 38 | 45.14 | 271.29 | 16.26 | 139 | 77***** | ***** | ***** | ***** | ***** |
| 18 | 9 | 38 | 45.05 | 271.73 | 18.80 | 141 | 77***** | ***** | ***** | ***** | ***** |
| 18 | 9 | 38 | 45.14 | 269.98 | 9.11 | 135 | 77 | .35 | .00 | 43.72 | 80.21 |
| 18 | 9 | 38 | 45.06 | 270.40 | 11.63 | 136 | 77 | .33 | .00 | 43.75 | 80.26 |
| 18 | 9 | 38 | 44.98 | 270.83 | 14.16 | 138 | 77 | .40 | .00 | 43.79 | 80.33 |
| 18 | 9 | 38 | 44.90 | 271.26 | 16.69 | 139 | 77 | .48 | .00 | 43.99 | 80.41 |
| 18 | 9 | 38 | 44.81 | 271.70 | 19.23 | 141 | 77 | .34 | .00 | 44.49 | 81.21 |
| 18 | 9 | 38 | 45.06 | 269.04 | 3.95 | 134 | 77 | .35 | .00 | 43.96 | 80.60 |
| 18 | 9 | 38 | 44.99 | 269.45 | 6.46 | 134 | 77 | .34 | .00 | 44.27 | 80.92 |
| 18 | 9 | 38 | 44.91 | 269.86 | 8.97 | 135 | 77 | .40 | .00 | 44.08 | 80.90 |
| 18 | 9 | 38 | 44.84 | 270.28 | 11.49 | 136 | 77 | .38 | .00 | 44.20 | 80.95 |
| 18 | 9 | 38 | 44.76 | 270.70 | 13.99 | 138 | 77 | .33 | .00 | 44.24 | 80.84 |
| 18 | 9 | 38 | 44.68 | 271.13 | 16.52 | 139 | 77 | .29 | .00 | 44.44 | 81.10 |
| 18 | 9 | 38 | 44.59 | 271.57 | 19.05 | 141 | 77 | .27 | .00 | 44.77 | 81.36 |
| 18 | 9 | 38 | 44.76 | 269.33 | 6.29 | 134 | 77 | .29 | .00 | 44.30 | 81.30 |
| 18 | 9 | 38 | 44.69 | 269.74 | 8.80 | 135 | 77 | .24 | .00 | 44.28 | 81.29 |
| 18 | 9 | 38 | 44.61 | 270.15 | 11.32 | 136 | 77 | .22 | .00 | 44.31 | 81.34 |
| 18 | 9 | 38 | 44.53 | 270.57 | 13.84 | 137 | 77 | .29 | .00 | 44.35 | 81.23 |
| 18 | 9 | 38 | 44.45 | 271.00 | 16.37 | 139 | 77 | .37 | .00 | 44.47 | 81.31 |
| 18 | 9 | 38 | 44.37 | 271.44 | 18.91 | 141 | 77 | .34 | .00 | 44.62 | 81.58 |
| 18 | 9 | 38 | 44.28 | 271.89 | 21.46 | 143 | 77 | .28 | .00 | 44.89 | 81.81 |
| 18 | 9 | 38 | 44.53 | 269.26 | 6.49 | 134 | 77 | .44 | .00 | 44.34 | 81.20 |
| 18 | 9 | 38 | 44.45 | 269.67 | 9.00 | 135 | 77 | .39 | .00 | 44.32 | 81.18 |
| 18 | 9 | 38 | 44.38 | 270.09 | 11.52 | 136 | 77 | .37 | .00 | 44.27 | 81.23 |
| 18 | 9 | 38 | 44.30 | 270.51 | 14.04 | 138 | 77 | .32 | .00 | 44.40 | 81.31 |
| 18 | 9 | 38 | 44.22 | 270.94 | 16.57 | 139 | 77 | .40 | .00 | 44.60 | 81.56 |
| 18 | 9 | 38 | 44.13 | 271.38 | 19.11 | 141 | 77 | .38 | .00 | 45.01 | 82.19 |
| 18 | 9 | 38 | 44.04 | 271.83 | 21.66 | 144 | 77 | .31 | .00 | 45.19 | 82.42 |
| 18 | 9 | 38 | 44.30 | 269.17 | 6.46 | 134 | 77 | .24 | .00 | 44.63 | 81.58 |
| 18 | 9 | 38 | 44.22 | 269.58 | 8.97 | 135 | 77 | .30 | .00 | 44.79 | 81.56 |
| 18 | 9 | 38 | 44.15 | 269.99 | 11.49 | 136 | 77 | .28 | .00 | 44.91 | 81.79 |
| 18 | 9 | 38 | 44.07 | 270.40 | 13.99 | 138 | 77 | .23 | .00 | 44.69 | 81.50 |
| 18 | 9 | 38 | 43.99 | 270.83 | 16.52 | 139 | 77 | .31 | .00 | 45.07 | 81.94 |
| 18 | 9 | 38 | 43.91 | 271.27 | 19.05 | 141 | 77 | .28 | .00 | 45.65 | 82.74 |
| 18 | 9 | 38 | 43.82 | 271.71 | 21.60 | 144 | 77 | .21 | .00 | 45.83 | 82.97 |
| 18 | 9 | 38 | 44.07 | 269.05 | 6.29 | 134 | 77 | .31 | .00 | 46.59 | 81.87 |
| 18 | 9 | 38 | 44.00 | 269.45 | 8.80 | 135 | 77 | .25 | .00 | 46.62 | 81.85 |
| 18 | 9 | 38 | 43.93 | 269.86 | 11.32 | 136 | 77 | .24 | .00 | 46.78 | 82.08 |
| 18 | 9 | 38 | 43.85 | 270.28 | 13.84 | 137 | 77 | .19 | .00 | 46.79 | 81.79 |
| 18 | 9 | 38 | 43.77 | 270.71 | 16.37 | 139 | 77 | .27 | .00 | 46.94 | 82.05 |
| 18 | 9 | 38 | 43.68 | 271.14 | 18.91 | 141 | 77 | .24 | .00 | 47.31 | 82.50 |
| 18 | 9 | 38 | 43.60 | 271.59 | 21.46 | 143 | 77 | .18 | .00 | 47.63 | 82.91 |
| 18 | 9 | 38 | 43.77 | 269.39 | 9.00 | 135 | 77 | .20 | .00 | 45.00 | 81.79 |
| 18 | 9 | 38 | 43.69 | 269.80 | 11.52 | 136 | 77 | .19 | .00 | 45.11 | 82.02 |
| 18 | 9 | 38 | 43.61 | 270.22 | 14.04 | 138 | 77 | .13 | .00 | 45.16 | 82.09 |
| 18 | 9 | 38 | 43.53 | 270.64 | 16.57 | 139 | 77 | .22 | .00 | 45.27 | 82.17 |
| 18 | 9 | 38 | 43.45 | 271.08 | 19.11 | 141 | 77 | .19 | .00 | 45.51 | 82.44 |
| 18 | 9 | 38 | 43.36 | 271.52 | 21.66 | 144 | 77 | .13 | .00 | 45.78 | 82.85 |
| 18 | 9 | 38 | 43.27 | 271.97 | 21.19 | 146 | 77 | .24 | .00 | 45.47 | 82.34 |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|---|----|-------|--------|-------|------|---------|-------|-------|-------|-------|
| 18 | 9 | 38 | 43.54 | 269.28 | 8.86 | 135 | 77***** | ***** | ***** | ***** | ***** |
| 18 | 9 | 38 | 43.47 | 269.69 | 11.38 | 136 | 77***** | ***** | ***** | ***** | ***** |
| 18 | 9 | 38 | 43.39 | 270.09 | 13.87 | 137 | 77***** | ***** | ***** | ***** | ***** |
| 18 | 9 | 38 | 43.31 | 270.52 | 16.40 | 139 | 77***** | ***** | ***** | ***** | ***** |
| 18 | 9 | 38 | 43.23 | 270.95 | 18.94 | 141 | 77***** | ***** | ***** | ***** | ***** |
| 18 | 9 | 38 | 43.14 | 271.39 | 21.48 | 143 | 77***** | ***** | ***** | ***** | ***** |
| 18 | 9 | 38 | 43.05 | 271.84 | 24.04 | 146 | 77***** | ***** | ***** | ***** | ***** |
| 18 | 9 | 38 | 43.31 | 269.18 | 8.80 | 135 | 77 | .36 | .00 | 44.86 | 82.09 |
| 18 | 9 | 38 | 43.24 | 269.58 | 11.32 | 136 | 77 | .35 | .00 | 45.07 | 82.32 |
| 18 | 9 | 38 | 43.16 | 269.99 | 13.84 | 137 | 77 | .30 | .00 | 45.29 | 82.40 |
| 18 | 9 | 38 | 43.08 | 270.41 | 16.37 | 139 | 77 | .26 | .00 | 45.31 | 82.48 |
| 18 | 9 | 38 | 43.00 | 270.84 | 18.91 | 141 | 77 | .24 | .00 | 45.46 | 82.75 |
| 18 | 9 | 38 | 42.91 | 271.28 | 21.46 | 143 | 77 | .29 | .00 | 45.64 | 82.80 |
| 18 | 9 | 38 | 42.82 | 271.74 | 24.01 | 146 | 77 | .28 | .00 | 45.08 | 81.93 |
| 18 | 9 | 38 | 43.09 | 269.06 | 8.66 | 135 | 77 | -.31 | .00 | 45.00 | 82.27 |
| 18 | 9 | 38 | 43.01 | 269.47 | 11.18 | 136 | 77 | -.34 | .00 | 45.12 | 82.14 |
| 18 | 9 | 38 | 42.94 | 269.88 | 13.70 | 137 | 77 | -.29 | .00 | 45.25 | 82.21 |
| 18 | 9 | 38 | 42.86 | 270.29 | 16.23 | 139 | 77 | -.34 | .00 | 45.27 | 82.47 |
| 18 | 9 | 38 | 42.77 | 270.72 | 18.77 | 141 | 77 | -.38 | .00 | 45.33 | 82.55 |
| 18 | 9 | 38 | 42.85 | 269.02 | 8.97 | 135 | 77 | -.71 | .00 | 44.56 | 81.30 |
| 18 | 9 | 38 | 42.77 | 269.42 | 11.49 | 136 | 77 | -.72 | .00 | 44.68 | 81.36 |
| 19 | 9 | 27 | 45.19 | 271.81 | 3.81 | 134 | 77 | .18 | .00 | 44.20 | 80.85 |
| 19 | 9 | 27 | 45.16 | 270.53 | 3.51 | 134 | 77 | .25 | .00 | 44.01 | 80.65 |
| 19 | 9 | 27 | 45.09 | 270.94 | 1.07 | 133 | 77 | .14 | .00 | 44.02 | 80.40 |
| 19 | 9 | 27 | 45.03 | 271.34 | 1.47 | 133 | 77 | .23 | .00 | 44.26 | 80.57 |
| 19 | 9 | 27 | 44.96 | 271.74 | 3.98 | 134 | 77 | .26 | .00 | 44.56 | 81.12 |
| 19 | 9 | 27 | 45.12 | 269.17 | 11.20 | 136 | 77***** | ***** | ***** | ***** | ***** |
| 19 | 9 | 27 | 45.06 | 269.58 | 8.71 | 135 | 77***** | ***** | ***** | ***** | ***** |
| 19 | 9 | 27 | 45.00 | 270.00 | 6.19 | 134 | 77***** | ***** | ***** | ***** | ***** |
| 19 | 9 | 27 | 44.93 | 270.41 | 3.68 | 134 | 77***** | ***** | ***** | ***** | ***** |
| 19 | 9 | 27 | 44.86 | 270.83 | 1.21 | 133 | 77***** | ***** | ***** | ***** | ***** |
| 19 | 9 | 27 | 44.80 | 271.22 | 1.33 | 133 | 77***** | ***** | ***** | ***** | ***** |
| 19 | 9 | 27 | 44.73 | 271.63 | 3.83 | 134 | 77***** | ***** | ***** | ***** | ***** |
| 19 | 9 | 27 | 44.89 | 269.13 | 10.94 | 136 | 77 | .29 | .00 | 44.12 | 81.25 |
| 19 | 9 | 27 | 44.82 | 269.55 | 8.42 | 135 | 77 | .24 | .00 | 44.07 | 80.88 |
| 19 | 9 | 27 | 44.76 | 269.96 | 5.91 | 134 | 77 | .31 | .00 | 44.01 | 80.80 |
| 19 | 9 | 27 | 44.69 | 270.37 | 3.40 | 134 | 77 | .23 | .00 | 44.07 | 80.85 |
| 19 | 9 | 27 | 44.63 | 270.79 | .91 | 133 | 77 | .23 | .00 | 44.08 | 80.78 |
| 19 | 9 | 27 | 44.56 | 271.18 | 1.64 | 133 | 77 | .21 | .00 | 44.32 | 81.13 |
| 19 | 9 | 27 | 44.49 | 271.59 | 4.14 | 134 | 77 | .23 | .00 | 44.54 | 81.32 |
| 19 | 9 | 27 | 44.42 | 271.99 | 6.63 | 134 | 77 | .22 | .00 | 45.02 | 82.06 |
| 19 | 9 | 27 | 44.65 | 269.04 | 10.94 | 136 | 77 | .38 | .00 | 44.39 | 81.43 |
| 19 | 9 | 27 | 44.59 | 269.46 | 8.42 | 135 | 77 | .33 | .00 | 44.34 | 81.41 |
| 19 | 9 | 27 | 44.53 | 269.87 | 5.91 | 134 | 77 | .40 | .00 | 44.37 | 81.16 |
| 19 | 9 | 27 | 44.46 | 270.28 | 3.40 | 134 | 77 | .32 | .00 | 44.43 | 81.39 |
| 19 | 9 | 27 | 44.40 | 270.69 | .96 | 133 | 77 | .20 | .00 | 44.44 | 81.32 |
| 19 | 9 | 27 | 44.33 | 271.08 | 1.58 | 133 | 77 | .30 | .00 | 44.68 | 81.67 |
| 19 | 9 | 27 | 44.26 | 271.49 | 4.09 | 134 | 77 | .32 | .00 | 45.07 | 82.21 |
| 19 | 9 | 27 | 44.19 | 271.89 | 6.60 | 134 | 77 | .31 | .00 | 45.29 | 82.60 |
| 19 | 9 | 27 | 44.36 | 269.35 | 8.59 | 135 | 77 | .23 | .00 | 44.31 | 81.59 |
| 19 | 9 | 27 | 44.30 | 269.76 | 6.08 | 134 | 77 | .30 | .00 | 44.34 | 81.52 |
| 19 | 9 | 27 | 44.24 | 270.17 | 3.57 | 134 | 77 | .22 | .00 | 44.48 | 81.39 |
| 19 | 9 | 27 | 44.17 | 270.58 | 1.10 | 133 | 77 | .22 | .00 | 44.41 | 81.33 |
| 19 | 9 | 27 | 44.11 | 270.97 | 1.45 | 133 | 77 | .20 | .00 | 44.74 | 81.85 |
| 19 | 9 | 27 | 44.04 | 271.37 | 3.95 | 134 | 77 | .10 | .00 | 45.30 | 82.75 |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|----|----|-------|--------|-------|------|---------|-------|-------|-------|-------|
| 19 | 9 | 27 | 43.97 | 271.78 | 6.46 | 134 | 77 | .09 | .00 | 45.61 | 83.32 |
| 19 | 9 | 27 | 44.14 | 269.25 | 8.73 | 135 | 77 | .26 | .00 | 44.70 | 81.92 |
| 19 | 9 | 27 | 44.07 | 269.66 | 6.22 | 134 | 77 | .22 | .00 | 44.55 | 81.49 |
| 19 | 9 | 27 | 44.01 | 270.06 | 3.71 | 134 | 77 | .25 | .00 | 44.61 | 81.72 |
| 19 | 9 | 27 | 43.94 | 270.47 | 1.24 | 133 | 77 | .25 | .00 | 44.53 | 81.48 |
| 19 | 9 | 27 | 43.88 | 270.86 | 1.31 | 133 | 77 | .11 | .00 | 44.78 | 81.82 |
| 19 | 9 | 27 | 43.81 | 271.26 | 3.80 | 134 | 77 | .13 | .00 | 45.17 | 82.37 |
| 19 | 9 | 27 | 43.74 | 271.66 | 6.29 | 134 | 77 | .12 | .00 | 45.39 | 82.58 |
| 19 | 9 | 27 | 43.90 | 269.21 | 8.42 | 135 | 77 | -.08 | .00 | 44.97 | 82.20 |
| 19 | 9 | 27 | 43.83 | 269.62 | 5.91 | 134 | 77 | -.02 | .00 | 44.82 | 81.94 |
| 19 | 9 | 27 | 43.77 | 270.03 | 3.40 | 134 | 77 | -.12 | .00 | 44.79 | 81.81 |
| 19 | 9 | 27 | 43.71 | 270.43 | .96 | 133 | 77 | -.24 | .00 | 44.80 | 81.74 |
| 19 | 9 | 27 | 43.64 | 270.82 | 1.58 | 133 | 77 | -.16 | .00 | 44.86 | 81.90 |
| 19 | 9 | 27 | 43.57 | 271.22 | 4.09 | 134 | 77 | -.27 | .00 | 44.90 | 81.90 |
| 19 | 9 | 27 | 43.50 | 271.62 | 6.60 | 134 | 77 | -.30 | .00 | 45.21 | 82.29 |
| 19 | 9 | 27 | 43.67 | 269.08 | 8.74 | 135 | 77 | -.86 | .00 | 44.45 | 81.63 |
| 19 | 9 | 27 | 43.61 | 269.49 | 6.22 | 134 | 77 | -.78 | .00 | 44.30 | 81.37 |
| 19 | 9 | 27 | 43.55 | 269.89 | 3.71 | 134 | 77 | -.85 | .00 | 44.45 | 81.61 |
| 19 | 9 | 27 | 43.48 | 270.31 | 1.21 | 133 | 77 | -.83 | .00 | 44.46 | 81.54 |
| 19 | 9 | 27 | 43.42 | 270.69 | 1.33 | 133 | 77 | -.85 | .00 | 44.36 | 81.35 |
| 19 | 9 | 27 | 43.35 | 271.09 | 3.83 | 134 | 77 | -.81 | .00 | 44.31 | 81.18 |
| 19 | 9 | 27 | 43.28 | 271.49 | 6.34 | 134 | 77 | -.80 | .00 | 44.62 | 81.75 |
| 19 | 9 | 27 | 43.21 | 271.89 | 8.86 | 135 | 77 | -.73 | .00 | 45.22 | 82.53 |
| 19 | 9 | 27 | 43.44 | 269.00 | 8.74 | 135 | 77 | .37 | .00 | 45.15 | 82.53 |
| 19 | 9 | 27 | 43.38 | 269.41 | 6.22 | 134 | 77 | .33 | .00 | 45.09 | 82.27 |
| 19 | 9 | 27 | 43.32 | 269.81 | 3.71 | 134 | 77 | .36 | .00 | 45.32 | 82.68 |
| 19 | 9 | 27 | 43.25 | 270.22 | 1.24 | 133 | 77 | .37 | .00 | 45.33 | 82.44 |
| 19 | 9 | 27 | 43.19 | 270.60 | 1.30 | 133 | 77 | .34 | .00 | 45.14 | 82.25 |
| 19 | 9 | 27 | 43.12 | 270.99 | 3.80 | 134 | 77 | .37 | .00 | 45.10 | 82.07 |
| 19 | 9 | 27 | 43.05 | 271.39 | 6.29 | 134 | 77 | .36 | .00 | 45.32 | 82.28 |
| 19 | 9 | 27 | 42.98 | 271.79 | 8.80 | 135 | 77 | .30 | .00 | 45.48 | 82.52 |
| 19 | 9 | 28 | 43.14 | 269.37 | 5.91 | 134 | 77***** | ***** | ***** | ***** | ***** |
| 19 | 9 | 28 | 43.08 | 269.77 | 3.40 | 134 | 77***** | ***** | ***** | ***** | ***** |
| 19 | 9 | 28 | 43.01 | 270.17 | .96 | 133 | 77***** | ***** | ***** | ***** | ***** |
| 19 | 9 | 28 | 42.95 | 270.56 | 1.58 | 133 | 77***** | ***** | ***** | ***** | ***** |
| 19 | 9 | 28 | 42.88 | 270.95 | 4.09 | 134 | 77***** | ***** | ***** | ***** | ***** |
| 19 | 9 | 28 | 42.81 | 271.35 | 6.60 | 134 | 77***** | ***** | ***** | ***** | ***** |
| 19 | 9 | 28 | 42.74 | 271.75 | 9.11 | 135 | 77***** | ***** | ***** | ***** | ***** |
| 19 | 9 | 28 | 42.91 | 269.27 | 6.08 | 134 | 77 | .34 | .00 | 45.26 | 82.60 |
| 19 | 9 | 28 | 42.85 | 269.66 | 3.57 | 134 | 77 | .38 | .00 | 45.23 | 82.65 |
| 19 | 9 | 28 | 42.79 | 270.07 | 1.10 | 133 | 77 | .26 | .00 | 45.06 | 82.23 |
| 19 | 9 | 28 | 42.72 | 270.45 | 1.44 | 133 | 77 | .36 | .00 | 45.04 | 82.21 |
| 19 | 20 | 55 | 42.86 | 269.70 | 42.03 | 183 | 79 | 22.45 | 38.63 | 49.15 | 87.06 |
| 19 | 20 | 55 | 42.80 | 269.02 | 39.35 | 176 | 79 | 21.99 | 37.83 | 48.92 | 86.67 |
| 19 | 20 | 56 | 43.09 | 269.70 | 42.21 | 183 | 79***** | ***** | ***** | ***** | ***** |
| 19 | 20 | 56 | 43.03 | 269.00 | 39.50 | 176 | 79***** | ***** | ***** | ***** | ***** |
| 19 | 20 | 56 | 43.33 | 269.68 | 42.37 | 184 | 79 | 21.36 | 36.74 | 49.07 | 86.75 |
| 19 | 20 | 56 | 43.55 | 269.54 | 42.03 | 183 | 79 | 21.12 | 36.33 | 48.89 | 86.69 |
| 19 | 20 | 56 | 43.79 | 269.50 | 42.09 | 183 | 79 | 20.62 | 35.46 | 48.84 | 86.65 |
| 19 | 20 | 56 | 44.02 | 269.49 | 42.24 | 183 | 79 | 19.80 | 34.04 | 48.81 | 86.53 |
| 19 | 20 | 56 | 44.25 | 269.37 | 42.03 | 183 | 79 | 19.48 | 33.49 | 48.81 | 86.64 |
| 19 | 20 | 56 | 44.49 | 269.34 | 42.09 | 183 | 79 | 19.80 | 34.05 | 48.63 | 86.53 |
| 19 | 20 | 56 | 44.72 | 269.36 | 42.37 | 184 | 79 | 20.32 | 34.96 | 48.56 | 85.97 |
| 19 | 20 | 56 | 44.96 | 269.31 | 42.40 | 184 | 78***** | ***** | ***** | ***** | ***** |
| 19 | 20 | 56 | 45.18 | 269.17 | 42.09 | 183 | 78 | 19.34 | 33.26 | 48.14 | 85.11 |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|---|---|-------|--------|-------|------|---------|-------|-------|-------|-------|
| 21 | 9 | 5 | 45.19 | 270.66 | 31.70 | 157 | 77 | .14 | .00 | 43.47 | 78.55 |
| 21 | 9 | 5 | 45.12 | 271.21 | 29.10 | 153 | 77 | .00 | .00 | 43.72 | 78.92 |
| 21 | 9 | 5 | 45.06 | 271.73 | 26.52 | 149 | 77 | .08 | .00 | 44.08 | 79.53 |
| 21 | 9 | 5 | 45.08 | 269.41 | 36.94 | 167 | 77 | -1.09 | .00 | 44.06 | 79.76 |
| 21 | 9 | 5 | 45.01 | 270.03 | 34.26 | 161 | 77 | -1.17 | .00 | 43.45 | 78.61 |
| 21 | 9 | 5 | 44.95 | 270.60 | 31.67 | 157 | 77 | -1.07 | .00 | 43.32 | 78.45 |
| 21 | 9 | 5 | 44.89 | 271.15 | 29.04 | 152 | 77 | -1.08 | .00 | 43.48 | 78.64 |
| 21 | 9 | 5 | 44.83 | 271.67 | 26.49 | 149 | 77 | -1.11 | .00 | 43.93 | 79.25 |
| 21 | 9 | 5 | 44.84 | 269.43 | 36.61 | 166 | 77 | -.91 | .00 | 44.30 | 80.31 |
| 21 | 9 | 5 | 44.77 | 270.03 | 33.97 | 161 | 77 | -.85 | .00 | 43.86 | 79.52 |
| 21 | 9 | 5 | 44.71 | 270.60 | 31.35 | 156 | 77 | -.86 | .00 | 43.81 | 79.37 |
| 21 | 9 | 5 | 44.65 | 271.14 | 28.75 | 152 | 77 | -.86 | .00 | 43.89 | 79.56 |
| 21 | 9 | 5 | 44.59 | 271.66 | 26.17 | 149 | 77 | -.86 | .00 | 44.34 | 80.00 |
| 21 | 9 | 5 | 44.61 | 269.34 | 36.73 | 166 | 77 | .12 | .00 | 45.26 | 81.56 |
| 21 | 9 | 5 | 44.54 | 269.94 | 34.08 | 161 | 77 | .03 | .00 | 44.55 | 80.59 |
| 21 | 9 | 5 | 44.48 | 270.51 | 31.47 | 156 | 77 | .11 | .00 | 44.68 | 80.61 |
| 21 | 9 | 5 | 44.42 | 271.05 | 28.87 | 152 | 77 | .09 | .00 | 44.85 | 80.79 |
| 21 | 9 | 5 | 44.36 | 271.57 | 26.28 | 149 | 77 | .06 | .00 | 45.20 | 81.40 |
| 21 | 9 | 5 | 44.38 | 269.26 | 36.82 | 167 | 77 | -1.07 | .00 | 44.83 | 81.37 |
| 21 | 9 | 5 | 44.31 | 269.87 | 34.14 | 161 | 77 | -1.03 | .00 | 44.12 | 80.22 |
| 21 | 9 | 5 | 44.25 | 270.43 | 31.55 | 156 | 77 | -1.05 | .00 | 44.17 | 80.06 |
| 21 | 9 | 5 | 44.19 | 270.97 | 28.92 | 152 | 77 | -1.06 | .00 | 44.51 | 80.61 |
| 21 | 9 | 5 | 44.13 | 271.48 | 26.37 | 149 | 77 | -1.08 | .00 | 44.86 | 81.04 |
| 21 | 9 | 5 | 44.07 | 271.97 | 23.80 | 146 | 77 | -1.09 | .00 | 45.01 | 81.31 |
| 21 | 9 | 6 | 44.15 | 269.13 | 37.09 | 167 | 77***** | ***** | ***** | ***** | ***** |
| 21 | 9 | 6 | 44.09 | 269.74 | 34.44 | 162 | 77***** | ***** | ***** | ***** | ***** |
| 21 | 9 | 6 | 44.02 | 270.31 | 31.82 | 157 | 77***** | ***** | ***** | ***** | ***** |
| 21 | 9 | 6 | 43.96 | 270.85 | 29.22 | 153 | 77***** | ***** | ***** | ***** | ***** |
| 21 | 9 | 6 | 43.90 | 271.36 | 26.63 | 149 | 77***** | ***** | ***** | ***** | ***** |
| 21 | 9 | 6 | 43.84 | 271.85 | 24.06 | 146 | 77***** | ***** | ***** | ***** | ***** |
| 21 | 9 | 6 | 43.91 | 269.07 | 37.09 | 167 | 77 | .48 | .00 | 46.58 | 83.77 |
| 21 | 9 | 6 | 43.85 | 269.68 | 34.44 | 162 | 77 | .53 | .00 | 45.70 | 82.62 |
| 21 | 9 | 6 | 43.79 | 270.24 | 31.82 | 157 | 77 | .51 | .00 | 45.39 | 82.10 |
| 21 | 9 | 6 | 43.73 | 270.78 | 29.21 | 153 | 77 | .50 | .00 | 45.56 | 82.29 |
| 21 | 9 | 6 | 43.67 | 271.29 | 26.63 | 149 | 77 | .47 | .00 | 45.83 | 82.54 |
| 21 | 9 | 6 | 43.61 | 271.77 | 24.09 | 146 | 77 | .58 | .00 | 45.97 | 82.98 |
| 21 | 9 | 6 | 43.67 | 269.08 | 36.79 | 166 | 77 | .48 | .00 | 46.59 | 84.32 |
| 21 | 9 | 6 | 43.61 | 269.69 | 34.11 | 161 | 77 | .40 | .00 | 45.80 | 82.99 |
| 21 | 9 | 6 | 43.55 | 270.24 | 31.52 | 156 | 77 | .38 | .00 | 45.58 | 82.65 |
| 21 | 9 | 6 | 43.49 | 270.78 | 28.89 | 152 | 77 | .37 | .00 | 45.75 | 82.66 |
| 21 | 9 | 6 | 43.43 | 271.28 | 26.34 | 149 | 77 | .35 | .00 | 45.93 | 82.91 |
| 21 | 9 | 6 | 43.37 | 271.76 | 23.77 | 146 | 77 | .34 | .00 | 46.16 | 83.35 |
| 21 | 9 | 6 | 43.38 | 269.59 | 34.29 | 161 | 77 | .39 | .00 | 46.40 | 83.45 |
| 21 | 9 | 6 | 43.32 | 270.15 | 31.67 | 157 | 77 | .37 | .00 | 46.27 | 83.11 |
| 21 | 9 | 6 | 43.26 | 270.68 | 29.07 | 153 | 77 | .36 | .00 | 46.18 | 83.12 |
| 21 | 9 | 6 | 43.20 | 271.18 | 26.49 | 149 | 77 | .34 | .00 | 46.18 | 83.19 |
| 21 | 9 | 6 | 43.14 | 271.67 | 23.92 | 146 | 77 | .32 | .00 | 46.50 | 83.81 |
| 21 | 9 | 6 | 43.14 | 269.57 | 34.08 | 161 | 77 | .19 | .00 | 46.25 | 83.51 |
| 21 | 9 | 6 | 43.08 | 270.12 | 31.46 | 156 | 77 | .15 | .00 | 46.20 | 83.17 |
| 21 | 9 | 6 | 43.02 | 270.65 | 28.86 | 152 | 77 | .01 | .00 | 46.28 | 83.36 |
| 21 | 9 | 6 | 42.96 | 271.15 | 26.28 | 149 | 77 | .09 | .00 | 46.46 | 83.61 |
| 21 | 9 | 6 | 42.90 | 271.63 | 23.74 | 146 | 77 | .06 | .00 | 46.69 | 84.04 |
| 21 | 9 | 6 | 42.91 | 269.49 | 34.14 | 161 | 77 | -.91 | .00 | 45.66 | 82.94 |
| 21 | 9 | 6 | 42.85 | 270.04 | 31.55 | 156 | 77 | -.91 | .00 | 45.62 | 82.79 |
| 21 | 9 | 6 | 42.79 | 270.57 | 28.95 | 152 | 77 | -.79 | .00 | 45.70 | 82.80 |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|----|----|-------|--------|-------|------|---------|-------|-------|-------|-------|
| 21 | 9 | 6 | 42.73 | 271.07 | 26.37 | 149 | 77 | -.80 | .00 | 45.97 | 83.23 |
| 21 | 20 | 34 | 42.92 | 271.58 | 26.40 | 152 | 78 | 22.67 | 38.91 | 50.69 | 89.13 |
| 21 | 20 | 34 | 42.86 | 271.09 | 23.82 | 148 | 78 | 21.36 | 36.64 | 51.26 | 90.42 |
| 21 | 20 | 34 | 42.81 | 270.62 | 21.26 | 146 | 78 | 19.32 | 33.13 | 50.98 | 90.12 |
| 21 | 20 | 34 | 42.75 | 270.16 | 18.71 | 143 | 78 | 19.01 | 32.59 | 51.24 | 90.32 |
| 21 | 20 | 34 | 43.16 | 271.56 | 26.66 | 152 | 78 | 20.27 | 34.77 | 50.80 | 89.49 |
| 21 | 20 | 34 | 43.10 | 271.07 | 24.08 | 149 | 78 | 21.45 | 36.79 | 50.86 | 89.81 |
| 21 | 20 | 34 | 43.04 | 270.60 | 21.52 | 146 | 78 | 19.77 | 33.90 | 50.58 | 89.41 |
| 21 | 20 | 34 | 42.99 | 270.14 | 18.97 | 144 | 78 | 18.50 | 31.72 | 51.02 | 89.97 |
| 21 | 20 | 34 | 42.93 | 269.70 | 16.45 | 142 | 78 | 18.36 | 31.48 | 50.70 | 89.53 |
| 21 | 20 | 34 | 42.87 | 269.26 | 13.92 | 140 | 78 | 17.75 | 30.42 | 50.15 | 88.57 |
| 21 | 20 | 34 | 43.39 | 271.50 | 26.69 | 152 | 78 | 19.72 | 33.82 | 51.00 | 89.94 |
| 21 | 20 | 34 | 43.33 | 271.01 | 24.14 | 149 | 78 | 21.13 | 36.25 | 50.96 | 90.12 |
| 21 | 20 | 34 | 43.28 | 270.53 | 21.55 | 146 | 78 | 19.45 | 33.35 | 50.59 | 89.71 |
| 21 | 20 | 34 | 43.22 | 270.07 | 19.03 | 144 | 78 | 17.71 | 30.34 | 51.21 | 90.58 |
| 21 | 20 | 34 | 43.16 | 269.63 | 16.48 | 141 | 78 | 17.22 | 29.49 | 51.06 | 90.25 |
| 21 | 20 | 34 | 43.11 | 269.19 | 13.95 | 140 | 78 | 16.84 | 28.84 | 50.42 | 88.97 |
| 21 | 20 | 34 | 43.67 | 271.90 | 28.99 | 155 | 78 | 17.76 | 30.44 | 50.16 | 88.84 |
| 21 | 20 | 34 | 43.62 | 271.38 | 26.40 | 151 | 78 | 20.09 | 34.46 | 50.77 | 89.76 |
| 21 | 20 | 34 | 43.56 | 270.88 | 23.82 | 148 | 78 | 22.44 | 38.50 | 50.57 | 89.95 |
| 21 | 20 | 34 | 43.50 | 270.40 | 21.26 | 146 | 78 | 20.15 | 34.56 | 50.37 | 89.64 |
| 21 | 20 | 34 | 43.44 | 269.94 | 18.71 | 143 | 78 | 17.57 | 30.09 | 50.98 | 90.71 |
| 21 | 20 | 34 | 43.39 | 269.50 | 16.17 | 141 | 78 | 16.58 | 28.39 | 51.09 | 90.85 |
| 21 | 20 | 34 | 43.33 | 269.06 | 13.63 | 140 | 78 | 15.84 | 27.11 | 50.37 | 89.70 |
| 21 | 20 | 34 | 43.91 | 271.89 | 29.28 | 156 | 78 | 16.05 | 27.48 | 49.31 | 88.84 |
| 21 | 20 | 34 | 43.85 | 271.37 | 26.69 | 152 | 78 | 18.18 | 31.15 | 49.93 | 89.84 |
| 21 | 20 | 34 | 43.80 | 270.87 | 24.11 | 149 | 78 | 23.51 | 40.36 | 49.55 | 89.30 |
| 21 | 20 | 34 | 43.74 | 270.39 | 21.55 | 146 | 78 | 22.68 | 38.92 | 49.18 | 88.67 |
| 21 | 20 | 34 | 43.68 | 269.92 | 19.00 | 143 | 78 | 18.35 | 31.45 | 50.06 | 90.26 |
| 21 | 20 | 34 | 43.63 | 269.48 | 16.48 | 141 | 78 | 16.33 | 27.95 | 50.35 | 91.07 |
| 21 | 20 | 34 | 43.57 | 269.04 | 13.95 | 140 | 78 | 15.37 | 26.30 | 49.89 | 90.21 |
| 21 | 20 | 34 | 44.14 | 271.80 | 29.16 | 155 | 78 | 17.23 | 29.53 | 49.66 | 87.48 |
| 21 | 20 | 34 | 44.08 | 271.27 | 26.57 | 152 | 78 | 18.28 | 31.33 | 50.28 | 88.50 |
| 21 | 20 | 34 | 44.03 | 270.78 | 24.03 | 149 | 78 | 23.00 | 39.48 | 50.16 | 88.40 |
| 21 | 20 | 34 | 43.97 | 270.29 | 21.43 | 146 | 78 | 23.46 | 40.27 | 49.61 | 87.85 |
| 21 | 20 | 34 | 43.91 | 269.83 | 18.91 | 143 | 78 | 18.88 | 32.36 | 50.66 | 89.59 |
| 21 | 20 | 34 | 43.85 | 269.38 | 16.37 | 141 | 78 | 17.08 | 29.24 | 51.12 | 90.31 |
| 21 | 20 | 34 | 44.37 | 271.69 | 28.96 | 155 | 78***** | ***** | ***** | ***** | ***** |
| 21 | 20 | 34 | 44.31 | 271.17 | 26.40 | 151 | 78***** | ***** | ***** | ***** | ***** |
| 21 | 20 | 34 | 44.25 | 270.67 | 23.82 | 148 | 78***** | ***** | ***** | ***** | ***** |
| 21 | 20 | 34 | 44.20 | 270.19 | 21.26 | 146 | 78***** | ***** | ***** | ***** | ***** |
| 21 | 20 | 34 | 44.14 | 269.72 | 18.71 | 143 | 78***** | ***** | ***** | ***** | ***** |
| 21 | 20 | 34 | 44.08 | 269.27 | 16.17 | 141 | 78***** | ***** | ***** | ***** | ***** |
| 21 | 20 | 34 | 44.60 | 271.66 | 29.13 | 155 | 78 | 15.77 | 26.98 | 49.07 | 87.82 |
| 21 | 20 | 34 | 44.55 | 271.13 | 26.54 | 152 | 78 | 15.39 | 26.33 | 49.78 | 89.29 |
| 21 | 20 | 34 | 44.49 | 270.63 | 23.97 | 148 | 78 | 15.61 | 26.72 | 50.00 | 89.97 |
| 21 | 20 | 34 | 44.43 | 270.14 | 21.40 | 146 | 78 | 17.73 | 30.38 | 49.37 | 88.99 |
| 21 | 20 | 34 | 44.37 | 269.67 | 18.85 | 143 | 78 | 15.99 | 27.37 | 50.16 | 90.55 |
| 21 | 20 | 34 | 44.31 | 269.22 | 16.34 | 141 | 78 | 14.43 | 24.68 | 50.62 | 91.28 |
| 21 | 20 | 34 | 44.83 | 271.55 | 28.96 | 155 | 78 | 15.03 | 25.72 | 48.82 | 87.44 |
| 21 | 20 | 34 | 44.77 | 271.03 | 26.37 | 151 | 78 | 14.90 | 25.50 | 49.27 | 88.40 |
| 21 | 20 | 34 | 44.72 | 270.53 | 23.82 | 148 | 78 | 15.14 | 25.91 | 49.50 | 88.88 |
| 21 | 20 | 34 | 44.66 | 270.03 | 21.23 | 146 | 78 | 16.20 | 27.74 | 49.04 | 88.42 |
| 21 | 20 | 34 | 44.60 | 269.57 | 18.71 | 143 | 78 | 15.90 | 27.22 | 49.74 | 89.68 |
| 21 | 20 | 34 | 44.54 | 269.11 | 16.17 | 141 | 78 | 15.07 | 25.78 | 50.29 | 90.53 |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD | |
|----|----|----|-------|--------|-------|------|---------|-------|--------|-------|-------|--|
| 21 | 20 | 34 | 45.06 | 271.49 | 28.96 | 155 | 78 | 15.50 | 26.54 | 49.38 | 86.53 | |
| 21 | 20 | 34 | 45.01 | 270.96 | 26.40 | 151 | 78 | 15.72 | 26.90 | 49.57 | 87.03 | |
| 21 | 20 | 34 | 44.95 | 270.45 | 23.82 | 148 | 78 | 16.30 | 27.92 | 49.71 | 87.39 | |
| 21 | 20 | 34 | 44.89 | 269.97 | 21.26 | 146 | 78 | 17.11 | 29.32 | 49.16 | 86.90 | |
| 21 | 20 | 34 | 44.83 | 269.49 | 18.71 | 143 | 78 | 17.15 | 29.38 | 49.95 | 88.25 | |
| 21 | 20 | 34 | 44.77 | 269.04 | 16.17 | 141 | 78 | 16.18 | 27.70 | 50.59 | 89.65 | |
| 21 | 20 | 35 | 45.18 | 270.41 | 23.97 | 148 | 78 | 15.65 | 26.79 | 49.47 | 86.74 | |
| 21 | 20 | 35 | 45.12 | 269.92 | 21.40 | 146 | 78 | 16.23 | 27.78 | 48.84 | 86.03 | |
| 21 | 20 | 35 | 45.07 | 269.44 | 18.85 | 143 | 78 | 16.27 | 27.85 | 49.54 | 87.20 | |
| 22 | 8 | 55 | 45.10 | 270.83 | 42.10 | 180 | 77 | -1.06 | .00 | 42.09 | 77.71 | |
| 22 | 8 | 55 | 45.04 | 271.53 | 39.40 | 172 | 77 | -1.04 | .00 | 44.72 | 82.56 | |
| 22 | 8 | 55 | 44.87 | 270.72 | 42.28 | 180 | 77 | -1.05 | .00 | 39.99 | 75.80 | |
| 22 | 8 | 55 | 44.81 | 271.43 | 39.58 | 173 | 77 | -1.02 | .00 | 43.23 | 79.81 | |
| 22 | 8 | 55 | 44.64 | 270.67 | 42.28 | 180 | 77 | .27 | .00 | 38.49 | 69.64 | |
| 22 | 8 | 55 | 44.58 | 271.36 | 39.61 | 173 | 77 | .28 | .00 | 42.07 | 75.83 | |
| 22 | 8 | 55 | 44.41 | 270.57 | 42.47 | 181 | 77 | -.08 | .00 | 36.18 | 68.57 | |
| 22 | 8 | 55 | 44.35 | 271.26 | 39.76 | 173 | 77 | -.08 | .00 | 39.50 | 74.86 | |
| 22 | 8 | 55 | 44.28 | 271.91 | 37.08 | 167 | 77 | .01 | .00 | 43.75 | 80.78 | |
| 22 | 8 | 55 | 44.17 | 270.56 | 42.28 | 180 | 77 | -1.15 | .00 | 35.20 | 66.72 | |
| 22 | 8 | 55 | 44.11 | 271.25 | 39.58 | 173 | 77 | -1.13 | .00 | 37.22 | 70.54 | |
| 22 | 8 | 55 | 44.05 | 271.89 | 36.91 | 167 | 77 | -1.12 | .00 | 41.65 | 78.93 | |
| 22 | 8 | 55 | 43.94 | 270.47 | 42.40 | 181 | 77 | -.03 | .00 | 37.52 | 68.36 | |
| 22 | 8 | 55 | 43.88 | 271.16 | 39.73 | 173 | 77 | .08 | .00 | 37.70 | 68.44 | |
| 22 | 8 | 55 | 43.82 | 271.80 | 37.05 | 167 | 77 | .06 | .00 | 39.94 | 72.37 | |
| 22 | 8 | 55 | 43.70 | 270.49 | 42.13 | 180 | 77 | -1.11 | .00 | 38.07 | 69.64 | |
| 22 | 8 | 55 | 43.64 | 271.17 | 39.43 | 173 | 77 | -1.09 | .00 | 38.77 | 70.80 | |
| 22 | 8 | 55 | 43.58 | 271.81 | 36.76 | 166 | 77 | -1.08 | .00 | 39.10 | 71.15 | |
| 22 | 8 | 55 | 43.47 | 270.40 | 42.25 | 180 | 77***** | | | | | |
| 22 | 8 | 55 | 43.41 | 271.09 | 39.55 | 173 | 77***** | | | | | |
| 22 | 8 | 55 | 43.35 | 271.72 | 36.87 | 167 | 77***** | | | | | |
| 22 | 8 | 55 | 43.24 | 270.34 | 42.28 | 180 | 77 | .31 | .00 | 34.83 | 63.55 | |
| 22 | 8 | 55 | 43.18 | 271.02 | 39.61 | 173 | 77 | .44 | .00 | 40.33 | 72.96 | |
| 22 | 8 | 55 | 43.11 | 271.65 | 36.93 | 167 | 77 | .43 | .00 | 43.53 | 78.17 | |
| 22 | 8 | 55 | 43.00 | 270.33 | 42.10 | 180 | 77 | -.06 | .00 | 36.23 | 66.20 | |
| 22 | 8 | 55 | 42.94 | 271.01 | 39.40 | 172 | 77 | -.06 | .00 | 41.12 | 73.99 | |
| 22 | 8 | 55 | 42.88 | 271.64 | 36.72 | 166 | 77 | .03 | .00 | 44.23 | 79.38 | |
| 22 | 8 | 55 | 42.77 | 270.23 | 42.28 | 180 | 77 | -1.22 | .00 | 36.49 | 66.76 | |
| 22 | 8 | 55 | 42.71 | 270.91 | 39.58 | 173 | 77 | -1.08 | .00 | 39.90 | 72.40 | |
| 22 | 20 | 23 | 42.92 | 271.66 | 12.01 | 139 | 78***** | | | | | |
| 22 | 20 | 23 | 42.86 | 271.24 | 9.52 | 138 | 78***** | | | | | |
| 22 | 20 | 23 | 42.80 | 270.83 | 7.00 | 137 | 78***** | | | | | |
| 22 | 20 | 23 | 42.74 | 270.42 | 4.48 | 136 | 78***** | | | | | |
| 22 | 20 | 23 | 43.15 | 271.59 | 12.07 | 139 | 78 | 48.76 | 84.23 | 25.96 | 47.30 | |
| 22 | 20 | 23 | 43.09 | 271.17 | 9.55 | 138 | 78 | 49.66 | 85.78 | 26.35 | 47.82 | |
| 22 | 20 | 23 | 43.03 | 270.76 | 7.03 | 137 | 78 | 52.94 | 91.44 | 25.76 | 46.75 | |
| 22 | 20 | 23 | 42.97 | 270.35 | 4.51 | 136 | 78 | 59.97 | 103.60 | 24.61 | 44.45 | |
| 22 | 20 | 23 | 42.91 | 269.95 | 2.03 | 136 | 78 | 66.97 | 115.70 | 24.33 | 43.94 | |
| 22 | 20 | 23 | 42.85 | 269.54 | .54 | 136 | 78 | 67.66 | 116.79 | 26.95 | 48.48 | |
| 22 | 20 | 23 | 42.79 | 269.14 | 3.02 | 136 | 78 | 60.45 | 104.36 | 29.62 | 53.24 | |
| 22 | 20 | 23 | 43.43 | 271.90 | 14.40 | 140 | 78 | 49.18 | 84.94 | 24.67 | 45.56 | |
| 22 | 20 | 23 | 43.37 | 271.48 | 11.87 | 139 | 78 | 49.22 | 85.01 | 25.19 | 46.48 | |
| 22 | 20 | 23 | 43.32 | 271.06 | 9.35 | 137 | 78 | 46.80 | 80.83 | 26.71 | 49.07 | |
| 22 | 20 | 23 | 43.26 | 270.64 | 6.83 | 137 | 78 | 49.36 | 85.26 | 26.83 | 48.95 | |
| 22 | 20 | 23 | 43.20 | 270.23 | 4.31 | 136 | 78 | 57.22 | 98.84 | 25.32 | 46.44 | |
| 22 | 20 | 23 | 43.14 | 269.84 | 1.86 | 136 | 78 | 67.31 | 116.27 | 24.44 | 44.52 | |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|----|----|-------|--------|-------|------|---------|---------|---------|---------|---------|
| 22 | 20 | 23 | 43.07 | 269.43 | .73 | 136 | 78 | 70.96 | 122.51 | 27.23 | 49.26 |
| 22 | 20 | 23 | 43.01 | 269.03 | 3.19 | 136 | 78 | 63.27 | 109.23 | 30.51 | 55.00 |
| 22 | 20 | 23 | 43.65 | 271.74 | 13.86 | 140 | 78 | 50.58 | 87.37 | 23.50 | 43.64 |
| 22 | 20 | 23 | 43.59 | 271.31 | 11.33 | 138 | 78 | 49.67 | 85.80 | 24.46 | 44.92 |
| 22 | 20 | 23 | 43.53 | 270.89 | 8.84 | 137 | 78 | 46.07 | 79.57 | 26.24 | 48.02 |
| 22 | 20 | 23 | 43.47 | 270.48 | 6.32 | 136 | 78 | 45.31 | 78.26 | 27.49 | 50.34 |
| 22 | 20 | 23 | 43.41 | 270.07 | 3.80 | 136 | 78 | 52.34 | 90.41 | 26.33 | 48.22 |
| 22 | 20 | 23 | 43.35 | 269.67 | 1.33 | 136 | 78 | 65.75 | 113.58 | 24.84 | 45.29 |
| 22 | 20 | 23 | 43.29 | 269.26 | 1.22 | 136 | 78 | 71.78 | 123.92 | 26.58 | 47.95 |
| 22 | 20 | 23 | 43.89 | 271.75 | 14.37 | 140 | 78 | 50.40 | 87.07 | 23.51 | 43.48 |
| 22 | 20 | 23 | 43.83 | 271.31 | 11.84 | 139 | 78 | 50.80 | 87.75 | 23.86 | 44.10 |
| 22 | 20 | 23 | 43.78 | 270.89 | 9.32 | 137 | 78 | 46.84 | 80.90 | 25.29 | 46.60 |
| 22 | 20 | 23 | 43.72 | 270.47 | 6.80 | 137 | 78 | 44.90 | 77.54 | 26.98 | 49.41 |
| 22 | 20 | 23 | 43.66 | 270.06 | 4.28 | 136 | 78 | 44.22 | 76.37 | 28.26 | 51.62 |
| 22 | 20 | 23 | 43.60 | 269.66 | 1.80 | 136 | 78 | 55.85 | 96.47 | 26.07 | 47.47 |
| 22 | 20 | 23 | 43.53 | 269.25 | .76 | 136 | 78 | 68.04 | 117.47 | 25.29 | 45.70 |
| 22 | 20 | 23 | 44.17 | 272.00 | 16.25 | 141 | 78 | 47.82 | 82.61 | 24.26 | 44.95 |
| 22 | 20 | 23 | 44.11 | 271.55 | 13.72 | 140 | 78 | 50.29 | 86.87 | 23.75 | 44.00 |
| 22 | 20 | 23 | 44.05 | 271.12 | 11.19 | 138 | 78 | 50.93 | 87.97 | 24.09 | 44.31 |
| 22 | 20 | 23 | 43.99 | 270.70 | 8.67 | 137 | 78 | 49.81 | 86.04 | 24.83 | 45.53 |
| 22 | 20 | 23 | 43.93 | 270.28 | 6.15 | 136 | 78 | 45.85 | 79.19 | 27.30 | 49.77 |
| 22 | 20 | 23 | 43.87 | 269.87 | 3.63 | 136 | 78 | 39.12 | 67.57 | 29.80 | 54.28 |
| 22 | 20 | 23 | 43.81 | 269.46 | 1.19 | 136 | 78 | 47.55 | 82.13 | 27.52 | 50.26 |
| 22 | 20 | 23 | 43.75 | 269.06 | 1.36 | 136 | 78 | 60.10 | 103.75 | 25.43 | 46.40 |
| 22 | 20 | 23 | 44.40 | 271.94 | 16.40 | 141 | 78 | 46.22 | 79.83 | 24.49 | 45.03 |
| 22 | 20 | 23 | 44.34 | 271.50 | 13.86 | 140 | 78 | 49.52 | 85.53 | 24.24 | 44.59 |
| 22 | 20 | 23 | 44.28 | 271.07 | 11.33 | 138 | 78 | 50.86 | 87.85 | 24.23 | 44.50 |
| 22 | 20 | 23 | 44.23 | 270.65 | 8.84 | 137 | 78 | 53.18 | 91.87 | 24.09 | 44.02 |
| 22 | 20 | 23 | 44.17 | 270.23 | 6.32 | 136 | 78 | 51.83 | 89.53 | 26.56 | 48.20 |
| 22 | 20 | 23 | 44.10 | 269.81 | 3.80 | 136 | 78 | 40.00 | 69.09 | 30.82 | 55.71 |
| 22 | 20 | 23 | 44.04 | 269.41 | 1.33 | 136 | 78 | 37.99 | 65.61 | 30.02 | 54.44 |
| 22 | 20 | 23 | 44.64 | 271.96 | 16.91 | 142 | 78 | 40.25 | 69.52 | 25.87 | 47.74 |
| 22 | 20 | 23 | 44.59 | 271.51 | 14.37 | 140 | 78 | 44.49 | 76.84 | 24.92 | 46.24 |
| 22 | 20 | 23 | 44.53 | 271.07 | 11.84 | 139 | 78 | 47.48 | 82.01 | 24.66 | 45.74 |
| 22 | 20 | 23 | 44.47 | 270.65 | 9.32 | 137 | 78 | 50.62 | 87.43 | 24.08 | 44.54 |
| 22 | 20 | 23 | 44.41 | 270.22 | 6.80 | 137 | 78 | 55.66 | 96.14 | 24.81 | 45.79 |
| 22 | 20 | 23 | 44.35 | 269.81 | 4.28 | 136 | 78 | 51.17 | 88.38 | 28.27 | 51.80 |
| 22 | 20 | 23 | 44.28 | 269.40 | 1.80 | 136 | 78 | 42.86 | 74.02 | 29.83 | 54.41 |
| 22 | 20 | 24 | 44.86 | 271.79 | 16.39 | 141 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 22 | 20 | 24 | 44.80 | 271.34 | 13.86 | 140 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 22 | 20 | 24 | 44.75 | 270.91 | 11.33 | 138 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 22 | 20 | 24 | 44.69 | 270.48 | 8.81 | 137 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 22 | 20 | 24 | 44.63 | 270.06 | 6.32 | 136 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 22 | 20 | 24 | 44.56 | 269.64 | 3.77 | 136 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 22 | 20 | 24 | 44.50 | 269.23 | 1.30 | 136 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 22 | 20 | 24 | 45.09 | 271.71 | 16.39 | 141 | 78 | 40.07 | 69.21 | 25.54 | 46.79 |
| 22 | 20 | 24 | 45.04 | 271.26 | 13.86 | 140 | 78 | 42.06 | 72.66 | 25.03 | 45.94 |
| 22 | 20 | 24 | 44.98 | 270.82 | 11.33 | 138 | 78 | 43.05 | 74.36 | 24.94 | 45.78 |
| 22 | 20 | 24 | 44.92 | 270.40 | 8.84 | 137 | 78 | 45.37 | 78.37 | 24.62 | 45.12 |
| 22 | 20 | 24 | 44.86 | 269.97 | 6.32 | 136 | 78 | 48.53 | 83.83 | 24.48 | 44.57 |
| 22 | 20 | 24 | 44.79 | 269.56 | 3.80 | 136 | 78 | 49.39 | 85.32 | 25.59 | 46.52 |
| 22 | 20 | 24 | 44.73 | 269.14 | 1.33 | 136 | 78 | 46.55 | 80.41 | 27.75 | 50.29 |
| 22 | 20 | 24 | 45.14 | 270.28 | 8.64 | 137 | 78 | 35.72 | 61.69 | 28.00 | 51.13 |
| 22 | 20 | 24 | 45.08 | 269.86 | 6.12 | 136 | 78 | 39.82 | 68.77 | 26.90 | 49.32 |
| 22 | 20 | 24 | 45.02 | 269.44 | 3.60 | 136 | 78 | 41.39 | 71.49 | 27.14 | 49.97 |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD | |
|----|----|----|-------|--------|-------|------|-------|-------|--------|-------|-------|--|
| 22 | 20 | 24 | 44.95 | 269.01 | 1.13 | 136 | 78 | 43.41 | 74.98 | 27.30 | 50.16 | |
| 23 | 20 | 12 | 42.85 | 271.72 | 3.84 | 136 | 78 | 44.10 | 76.04 | 42.77 | 78.37 | |
| 23 | 20 | 12 | 42.78 | 271.32 | 6.35 | 136 | 78 | 48.73 | 84.03 | 43.13 | 78.46 | |
| 23 | 20 | 12 | 42.72 | 270.91 | 8.87 | 137 | 78 | 50.34 | 86.82 | 43.87 | 79.71 | |
| 23 | 20 | 12 | 43.08 | 271.64 | 3.81 | 136 | 78 | 40.73 | 70.23 | 44.00 | 78.90 | |
| 23 | 20 | 12 | 43.01 | 271.23 | 6.33 | 136 | 78 | 44.28 | 76.36 | 43.40 | 77.91 | |
| 23 | 20 | 12 | 42.95 | 270.83 | 8.82 | 137 | 78 | 49.08 | 84.65 | 43.53 | 77.97 | |
| 23 | 20 | 12 | 42.88 | 270.42 | 11.34 | 138 | 78 | 50.96 | 87.89 | 44.53 | 79.57 | |
| 23 | 20 | 12 | 42.80 | 270.00 | 13.87 | 140 | 78 | 49.84 | 85.96 | 45.11 | 80.14 | |
| 23 | 20 | 12 | 42.73 | 269.57 | 16.40 | 141 | 78 | 47.79 | 82.42 | 45.02 | 80.20 | |
| 23 | 20 | 12 | 43.37 | 271.93 | 1.47 | 136 | ***** | | | | | |
| 23 | 20 | 12 | 43.30 | 271.52 | 3.98 | 136 | ***** | | | | | |
| 23 | 20 | 12 | 43.24 | 271.12 | 6.50 | 136 | ***** | | | | | |
| 23 | 20 | 12 | 43.17 | 270.71 | 9.02 | 137 | ***** | | | | | |
| 23 | 20 | 12 | 43.10 | 270.29 | 11.54 | 138 | ***** | | | | | |
| 23 | 20 | 12 | 43.02 | 269.87 | 14.07 | 140 | ***** | | | | | |
| 23 | 20 | 12 | 42.95 | 269.45 | 16.60 | 141 | ***** | | | | | |
| 23 | 20 | 12 | 42.87 | 269.01 | 19.14 | 143 | ***** | | | | | |
| 23 | 20 | 12 | 43.60 | 271.85 | 1.45 | 136 | 78 | 47.47 | 81.87 | 44.86 | 80.89 | |
| 23 | 20 | 12 | 43.53 | 271.44 | 3.95 | 136 | 78 | 51.29 | 88.46 | 44.58 | 80.56 | |
| 23 | 20 | 12 | 43.47 | 271.03 | 6.47 | 136 | 78 | 46.30 | 79.85 | 44.93 | 81.41 | |
| 23 | 20 | 12 | 43.40 | 270.62 | 8.99 | 137 | 78 | 43.29 | 74.64 | 44.89 | 81.46 | |
| 23 | 20 | 12 | 43.33 | 270.20 | 11.51 | 138 | 78 | 48.13 | 83.00 | 44.67 | 80.91 | |
| 23 | 20 | 12 | 43.25 | 269.79 | 14.01 | 140 | 78 | 50.57 | 87.21 | 44.46 | 80.70 | |
| 23 | 20 | 12 | 43.18 | 269.36 | 16.54 | 141 | 78 | 47.10 | 81.22 | 44.11 | 79.96 | |
| 23 | 20 | 12 | 43.83 | 271.78 | 1.31 | 136 | 78 | 53.28 | 91.89 | 43.61 | 79.01 | |
| 23 | 20 | 12 | 43.77 | 271.37 | 3.81 | 136 | 78 | 55.57 | 95.85 | 43.68 | 78.93 | |
| 23 | 20 | 12 | 43.70 | 270.97 | 6.30 | 136 | 78 | 55.34 | 95.44 | 44.21 | 79.91 | |
| 23 | 20 | 12 | 43.63 | 270.55 | 8.85 | 137 | 78 | 51.38 | 88.62 | 44.25 | 80.32 | |
| 23 | 20 | 12 | 43.56 | 270.14 | 11.34 | 138 | 78 | 49.72 | 85.75 | 44.30 | 80.34 | |
| 23 | 20 | 12 | 43.49 | 269.72 | 13.87 | 140 | 78 | 43.50 | 83.64 | 44.44 | 80.34 | |
| 23 | 20 | 12 | 43.41 | 269.29 | 16.40 | 141 | 78 | 41.49 | 71.53 | 44.53 | 80.90 | |
| 23 | 20 | 12 | 44.06 | 271.70 | 1.25 | 136 | 78 | 56.53 | 97.52 | 42.74 | 75.98 | |
| 23 | 20 | 12 | 44.00 | 271.29 | 3.76 | 136 | 78 | 58.21 | 100.43 | 43.41 | 76.87 | |
| 23 | 20 | 12 | 43.93 | 270.88 | 6.27 | 136 | 78 | 58.56 | 101.03 | 43.85 | 77.62 | |
| 23 | 20 | 12 | 43.86 | 270.47 | 8.79 | 137 | 78 | 59.45 | 102.57 | 43.46 | 76.96 | |
| 23 | 20 | 12 | 43.79 | 270.05 | 11.31 | 138 | 78 | 57.07 | 98.46 | 43.95 | 77.59 | |
| 23 | 20 | 12 | 43.72 | 269.63 | 13.84 | 140 | 78 | 47.90 | 82.61 | 45.13 | 79.54 | |
| 23 | 20 | 12 | 43.64 | 269.19 | 16.37 | 141 | 78 | 37.55 | 64.75 | 46.26 | 81.83 | |
| 23 | 20 | 13 | 44.35 | 271.98 | 1.10 | 135 | 78 | 45.90 | 79.16 | 43.62 | 78.28 | |
| 23 | 20 | 13 | 44.29 | 271.58 | 1.45 | 135 | 78 | 52.50 | 90.56 | 41.97 | 75.34 | |
| 23 | 20 | 13 | 44.22 | 271.17 | 3.95 | 136 | 78 | 56.66 | 97.74 | 41.95 | 75.28 | |
| 23 | 20 | 13 | 44.15 | 270.76 | 6.47 | 136 | 78 | 56.75 | 97.90 | 42.04 | 75.47 | |
| 23 | 20 | 13 | 44.09 | 270.34 | 8.99 | 137 | 78 | 57.51 | 99.21 | 41.82 | 75.16 | |
| 23 | 20 | 13 | 44.01 | 269.92 | 11.51 | 138 | 78 | 56.30 | 97.12 | 42.74 | 76.56 | |
| 23 | 20 | 13 | 43.94 | 269.50 | 14.04 | 140 | 78 | 48.53 | 83.70 | 44.01 | 78.97 | |
| 23 | 20 | 13 | 43.86 | 269.07 | 16.55 | 141 | 78 | 37.82 | 65.20 | 45.66 | 81.93 | |
| 23 | 20 | 13 | 44.59 | 271.95 | 1.35 | 135 | 78 | 47.82 | 82.46 | 43.07 | 78.31 | |
| 23 | 20 | 13 | 44.52 | 271.53 | 1.20 | 135 | 78 | 50.77 | 87.56 | 41.68 | 75.55 | |
| 23 | 20 | 13 | 44.46 | 271.12 | 3.70 | 136 | 78 | 53.89 | 92.95 | 40.97 | 74.37 | |
| 23 | 20 | 13 | 44.39 | 270.71 | 6.21 | 136 | 78 | 52.94 | 91.32 | 41.06 | 74.68 | |
| 23 | 20 | 13 | 44.32 | 270.29 | 8.70 | 137 | 78 | 52.55 | 90.63 | 41.19 | 75.02 | |
| 23 | 20 | 13 | 44.25 | 269.87 | 11.23 | 138 | 78 | 53.14 | 91.66 | 41.77 | 75.83 | |
| 23 | 20 | 13 | 44.17 | 269.45 | 13.76 | 139 | 78 | 50.02 | 86.27 | 42.78 | 77.62 | |
| 23 | 20 | 13 | 44.10 | 269.01 | 16.29 | 141 | 78 | 42.65 | 73.55 | 44.35 | 80.09 | |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|----|----|-------|--------|-------|------|---------|---------|---------|---------|---------|
| 23 | 20 | 13 | 44.82 | 271.85 | 1.30 | 135 | 78 | 48.49 | 83.63 | 43.66 | 77.48 |
| 23 | 20 | 13 | 44.75 | 271.43 | 1.25 | 135 | 78 | 51.43 | 88.71 | 42.62 | 75.64 |
| 23 | 20 | 13 | 44.69 | 271.02 | 3.76 | 136 | 78 | 53.70 | 92.64 | 41.90 | 74.49 |
| 23 | 20 | 13 | 44.62 | 270.60 | 6.27 | 136 | 78 | 52.51 | 90.58 | 41.73 | 74.24 |
| 23 | 20 | 13 | 44.55 | 270.19 | 8.79 | 137 | 78 | 52.81 | 91.09 | 41.77 | 74.55 |
| 23 | 20 | 13 | 44.48 | 269.76 | 11.31 | 138 | 78 | 55.28 | 95.36 | 42.08 | 74.82 |
| 23 | 20 | 13 | 44.40 | 269.34 | 13.84 | 139 | 78 | 55.11 | 95.07 | 42.65 | 75.74 |
| 23 | 20 | 13 | 45.04 | 271.71 | 1.10 | 135 | 78 | 48.07 | 82.91 | 44.09 | 77.97 |
| 23 | 20 | 13 | 44.98 | 271.31 | 1.45 | 135 | 78 | 50.89 | 87.78 | 43.22 | 76.46 |
| 23 | 20 | 13 | 44.91 | 270.89 | 3.95 | 136 | 78 | 54.00 | 93.15 | 42.15 | 74.75 |
| 23 | 20 | 13 | 44.84 | 270.48 | 6.47 | 136 | 78 | 54.46 | 93.95 | 41.63 | 73.91 |
| 23 | 20 | 13 | 44.77 | 270.06 | 8.99 | 137 | 78 | 54.88 | 94.67 | 41.33 | 73.70 |
| 23 | 20 | 13 | 44.70 | 269.63 | 11.51 | 138 | 78 | 54.86 | 94.65 | 41.55 | 74.05 |
| 23 | 20 | 13 | 44.62 | 269.21 | 14.01 | 140 | 78 | 56.59 | 97.63 | 42.04 | 74.61 |
| 23 | 20 | 13 | 45.15 | 270.84 | 3.70 | 136 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 23 | 20 | 13 | 45.08 | 270.43 | 6.21 | 136 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 23 | 20 | 13 | 45.01 | 270.01 | 8.70 | 137 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 23 | 20 | 13 | 44.93 | 269.58 | 11.23 | 138 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 23 | 20 | 13 | 44.86 | 269.15 | 13.76 | 139 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 23 | 20 | 13 | 45.15 | 269.43 | 11.54 | 138 | 78 | 54.84 | 94.60 | 40.71 | 73.84 |
| 24 | 20 | 1 | 42.73 | 271.82 | 19.09 | 143 | 78 | 50.20 | 86.57 | 38.79 | 68.94 |
| 24 | 20 | 1 | 42.96 | 271.75 | 18.94 | 143 | 78 | 46.64 | 80.42 | 40.49 | 71.96 |
| 24 | 20 | 1 | 42.88 | 271.30 | 21.49 | 146 | 78 | 50.25 | 86.65 | 38.14 | 68.33 |
| 24 | 20 | 1 | 42.79 | 270.84 | 24.06 | 148 | 78 | 59.13 | 101.98 | 35.52 | 63.81 |
| 24 | 20 | 1 | 43.19 | 271.66 | 18.92 | 143 | 78 | 55.45 | 95.62 | 40.40 | 71.53 |
| 24 | 20 | 1 | 43.11 | 271.21 | 21.44 | 145 | 78 | 53.01 | 91.42 | 38.65 | 68.77 |
| 24 | 20 | 1 | 43.02 | 270.75 | 24.00 | 148 | 78 | 53.00 | 91.40 | 36.99 | 66.19 |
| 24 | 20 | 1 | 42.92 | 270.27 | 26.57 | 151 | 78 | 53.20 | 102.10 | 34.60 | 62.26 |
| 24 | 20 | 1 | 42.82 | 269.77 | 29.16 | 155 | 78 | 65.23 | 112.52 | 33.18 | 59.40 |
| 24 | 20 | 1 | 42.71 | 269.25 | 31.77 | 159 | 78 | 69.84 | 120.32 | 32.27 | 57.88 |
| 24 | 20 | 1 | 43.49 | 271.97 | 16.54 | 141 | 78 | 56.78 | 97.94 | 41.18 | 72.19 |
| 24 | 20 | 1 | 43.41 | 271.53 | 19.09 | 143 | 78 | 58.77 | 101.37 | 39.17 | 69.09 |
| 24 | 20 | 1 | 43.33 | 271.08 | 21.64 | 146 | 78 | 55.98 | 96.56 | 38.12 | 67.51 |
| 24 | 20 | 1 | 43.23 | 270.61 | 24.20 | 148 | 78 | 52.42 | 90.40 | 37.15 | 65.70 |
| 24 | 20 | 1 | 43.14 | 270.13 | 26.78 | 152 | 78 | 53.41 | 92.10 | 35.72 | 63.68 |
| 24 | 20 | 1 | 43.04 | 269.62 | 29.37 | 155 | 78 | 60.98 | 105.18 | 34.21 | 61.10 |
| 24 | 20 | 1 | 42.93 | 269.10 | 31.98 | 160 | 78 | 67.01 | 115.44 | 33.91 | 60.38 |
| 24 | 20 | 2 | 43.72 | 271.90 | 16.40 | 141 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 24 | 20 | 2 | 43.64 | 271.45 | 18.94 | 143 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 24 | 20 | 2 | 43.56 | 271.00 | 21.49 | 145 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 24 | 20 | 2 | 43.47 | 270.53 | 24.06 | 148 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 24 | 20 | 2 | 43.37 | 270.05 | 26.63 | 151 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 24 | 20 | 2 | 43.27 | 269.55 | 29.22 | 155 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 24 | 20 | 2 | 43.16 | 269.02 | 31.83 | 159 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 24 | 20 | 2 | 43.95 | 271.76 | 16.60 | 141 | 78 | 53.32 | 91.95 | 33.02 | 59.57 |
| 24 | 20 | 2 | 43.86 | 271.32 | 19.14 | 143 | 78 | 50.81 | 87.61 | 33.28 | 60.30 |
| 24 | 20 | 2 | 43.78 | 270.87 | 21.67 | 146 | 78 | 50.03 | 86.27 | 35.28 | 63.58 |
| 24 | 20 | 2 | 43.69 | 270.40 | 24.23 | 148 | 78 | 53.22 | 91.78 | 35.97 | 64.49 |
| 24 | 20 | 2 | 43.59 | 269.91 | 26.81 | 152 | 78 | 55.98 | 96.54 | 35.15 | 63.34 |
| 24 | 20 | 2 | 43.49 | 269.41 | 29.40 | 155 | 78 | 56.45 | 97.35 | 35.03 | 62.67 |
| 24 | 20 | 2 | 44.18 | 271.67 | 16.54 | 141 | 78 | 39.09 | 67.39 | 34.09 | 61.81 |
| 24 | 20 | 2 | 44.09 | 271.23 | 19.09 | 143 | 78 | 40.02 | 68.98 | 33.73 | 61.38 |
| 24 | 20 | 2 | 44.01 | 270.77 | 21.64 | 146 | 78 | 41.96 | 72.34 | 35.74 | 64.44 |
| 24 | 20 | 2 | 43.91 | 270.30 | 24.20 | 148 | 78 | 46.10 | 79.49 | 36.17 | 65.38 |
| 24 | 20 | 2 | 43.82 | 269.81 | 26.78 | 152 | 78 | 53.49 | 92.24 | 34.73 | 62.53 |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|----|---|-------|--------|-------|------|---------|-------|-------|-------|-------|
| 24 | 20 | 2 | 43.71 | 269.31 | 29.37 | 155 | 78 | 52.88 | 91.20 | 35.66 | 63.65 |
| 24 | 20 | 2 | 44.41 | 271.60 | 16.40 | 141 | 78 | 28.62 | 49.30 | 38.18 | 68.95 |
| 24 | 20 | 2 | 44.32 | 271.15 | 18.94 | 143 | 78 | 30.13 | 51.91 | 38.00 | 68.81 |
| 24 | 20 | 2 | 44.24 | 270.69 | 21.50 | 145 | 78 | 34.10 | 58.76 | 37.39 | 67.58 |
| 24 | 20 | 2 | 44.15 | 270.22 | 24.06 | 148 | 78 | 37.52 | 64.68 | 36.51 | 65.85 |
| 24 | 20 | 2 | 44.05 | 269.73 | 26.63 | 151 | 78 | 41.94 | 72.32 | 35.68 | 64.11 |
| 24 | 20 | 2 | 43.94 | 269.23 | 29.22 | 155 | 78 | 42.29 | 72.91 | 36.79 | 65.76 |
| 24 | 20 | 2 | 44.71 | 271.90 | 14.07 | 140 | 78 | 30.97 | 53.35 | 36.97 | 67.17 |
| 24 | 20 | 2 | 44.63 | 271.46 | 16.60 | 141 | 78 | 29.75 | 51.24 | 38.97 | 70.51 |
| 24 | 20 | 2 | 44.55 | 271.02 | 19.15 | 143 | 78 | 30.20 | 52.02 | 39.58 | 71.60 |
| 24 | 20 | 2 | 44.46 | 270.56 | 21.67 | 146 | 78 | 30.48 | 52.52 | 39.23 | 70.77 |
| 24 | 20 | 2 | 44.37 | 270.09 | 24.23 | 148 | 78 | 31.54 | 54.35 | 37.39 | 67.71 |
| 24 | 20 | 2 | 44.27 | 269.59 | 26.81 | 152 | 78 | 32.29 | 55.64 | 36.91 | 66.72 |
| 24 | 20 | 2 | 44.16 | 269.08 | 29.40 | 155 | 78 | 34.06 | 58.69 | 38.02 | 68.64 |
| 24 | 20 | 2 | 44.94 | 271.81 | 14.04 | 139 | 78 | 30.13 | 51.90 | 39.73 | 71.62 |
| 24 | 20 | 2 | 44.86 | 271.37 | 16.55 | 141 | 78 | 32.35 | 55.73 | 39.56 | 71.11 |
| 24 | 20 | 2 | 44.77 | 270.92 | 19.09 | 143 | 78 | 33.74 | 58.14 | 39.46 | 70.94 |
| 24 | 20 | 2 | 44.69 | 270.46 | 21.64 | 146 | 78 | 34.39 | 59.26 | 39.38 | 70.90 |
| 24 | 20 | 2 | 44.59 | 269.98 | 24.20 | 148 | 78 | 34.85 | 60.07 | 37.45 | 67.54 |
| 24 | 20 | 2 | 44.49 | 269.49 | 26.78 | 152 | 78 | 35.01 | 60.33 | 36.80 | 66.44 |
| 24 | 20 | 2 | 45.17 | 271.74 | 13.87 | 139 | 78 | 29.67 | 51.11 | 43.03 | 76.73 |
| 24 | 20 | 2 | 45.09 | 271.30 | 16.40 | 141 | 78 | 35.68 | 61.49 | 41.47 | 73.87 |
| 24 | 20 | 2 | 45.01 | 270.85 | 18.95 | 143 | 78 | 38.38 | 66.16 | 39.81 | 71.08 |
| 24 | 20 | 2 | 44.92 | 270.38 | 21.50 | 145 | 78 | 42.46 | 73.21 | 38.24 | 68.44 |
| 24 | 20 | 2 | 44.82 | 269.91 | 24.06 | 148 | 78 | 46.84 | 80.76 | 36.40 | 65.42 |
| 24 | 20 | 2 | 44.73 | 269.41 | 26.63 | 151 | 78 | 47.00 | 81.03 | 36.19 | 64.86 |
| 24 | 20 | 2 | 45.14 | 270.25 | 21.67 | 146 | 78 | 43.14 | 74.37 | 39.09 | 70.23 |
| 24 | 20 | 2 | 45.04 | 269.77 | 24.23 | 148 | 78 | 51.41 | 88.65 | 36.73 | 66.15 |
| 24 | 20 | 2 | 44.94 | 269.27 | 26.81 | 152 | 78 | 51.79 | 89.31 | 36.86 | 66.22 |
| 24 | 20 | 2 | 45.18 | 269.19 | 26.66 | 151 | 78***** | ***** | ***** | ***** | ***** |
| 25 | 10 | 3 | 45.14 | 270.90 | 42.35 | 180 | 77 | .18 | .00 | 39.23 | 71.24 |
| 25 | 10 | 3 | 45.07 | 270.15 | 39.83 | 173 | 77 | .17 | .00 | 37.94 | 69.60 |
| 25 | 10 | 3 | 44.91 | 270.82 | 42.54 | 181 | 77 | .17 | .00 | 39.93 | 72.46 |
| 25 | 10 | 3 | 45.01 | 269.37 | 37.00 | 167 | 77***** | ***** | ***** | ***** | ***** |
| 25 | 10 | 3 | 44.86 | 269.99 | 39.68 | 173 | 77***** | ***** | ***** | ***** | ***** |
| 25 | 10 | 3 | 44.69 | 270.66 | 42.38 | 180 | 77***** | ***** | ***** | ***** | ***** |
| 25 | 10 | 3 | 44.79 | 269.21 | 36.85 | 166 | 77 | -.10 | .00 | 38.94 | 71.78 |
| 25 | 10 | 3 | 44.64 | 269.83 | 39.53 | 173 | 77 | -.11 | .00 | 39.73 | 73.04 |
| 25 | 10 | 3 | 44.48 | 270.50 | 42.23 | 180 | 77 | -.11 | .00 | 39.19 | 71.95 |
| 25 | 10 | 3 | 44.55 | 269.17 | 37.18 | 167 | 77 | .15 | .00 | 38.92 | 71.20 |
| 25 | 10 | 3 | 44.40 | 269.79 | 39.86 | 173 | 77 | .15 | .00 | 38.32 | 70.31 |
| 25 | 10 | 3 | 44.24 | 270.45 | 42.53 | 181 | 77 | .14 | .00 | 37.00 | 68.32 |
| 25 | 10 | 3 | 44.33 | 269.01 | 37.00 | 167 | 77 | .21 | .00 | 36.63 | 67.39 |
| 25 | 10 | 3 | 44.19 | 269.63 | 39.68 | 173 | 77 | .20 | .00 | 36.29 | 66.86 |
| 25 | 10 | 3 | 44.03 | 270.29 | 42.38 | 180 | 77 | .20 | .00 | 35.40 | 65.59 |
| 25 | 10 | 4 | 43.97 | 269.48 | 39.52 | 173 | 77 | .23 | .00 | 35.59 | 65.96 |
| 25 | 10 | 4 | 43.81 | 270.13 | 42.23 | 180 | 77 | .11 | .00 | 34.79 | 64.87 |
| 25 | 10 | 4 | 43.73 | 269.43 | 39.83 | 173 | 77 | .03 | .00 | 35.87 | 66.13 |
| 25 | 10 | 4 | 43.57 | 270.09 | 42.53 | 181 | 77 | .02 | .00 | 33.94 | 63.24 |
| 25 | 10 | 4 | 43.52 | 269.28 | 39.67 | 173 | 77 | .07 | .00 | 35.59 | 65.97 |
| 25 | 10 | 4 | 43.36 | 269.93 | 42.38 | 180 | 77 | .19 | .00 | 32.61 | 61.11 |
| 25 | 10 | 4 | 43.30 | 269.16 | 39.64 | 173 | 77 | .17 | .00 | 34.83 | 64.51 |
| 25 | 10 | 4 | 43.14 | 269.81 | 42.35 | 180 | 77 | .05 | .00 | 31.59 | 59.30 |
| 25 | 10 | 4 | 43.07 | 269.05 | 39.70 | 173 | 77***** | ***** | ***** | ***** | ***** |
| 25 | 10 | 4 | 42.91 | 269.71 | 42.41 | 180 | 77***** | ***** | ***** | ***** | ***** |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|----|----|-------|--------|-------|------|---------|---------|---------|---------|---------|
| 25 | 19 | 51 | 42.79 | 271.92 | 31.92 | 159 | 78 | 69.62 | 119.76 | 30.89 | 56.62 |
| 25 | 19 | 51 | 43.02 | 271.82 | 31.89 | 159 | 78 | 68.85 | 118.42 | 33.55 | 61.72 |
| 25 | 19 | 51 | 42.90 | 271.27 | 34.51 | 164 | 78 | 71.16 | 122.40 | 33.57 | 61.42 |
| 25 | 19 | 51 | 42.77 | 270.69 | 37.17 | 170 | 78 | 73.51 | 126.46 | 32.46 | 59.76 |
| 25 | 19 | 51 | 43.24 | 271.69 | 31.97 | 159 | 78 | 74.49 | 128.16 | 31.69 | 56.85 |
| 25 | 19 | 51 | 43.12 | 271.14 | 34.60 | 164 | 78 | 76.54 | 131.71 | 31.37 | 56.34 |
| 25 | 19 | 51 | 42.99 | 270.56 | 37.26 | 170 | 78 | 77.34 | 133.08 | 29.81 | 53.88 |
| 25 | 19 | 51 | 42.85 | 269.94 | 39.91 | 176 | 78 | 80.78 | 139.01 | 26.85 | 49.15 |
| 25 | 19 | 51 | 43.47 | 271.62 | 31.80 | 159 | 78 | 73.51 | 126.48 | 27.51 | 49.61 |
| 25 | 19 | 51 | 43.35 | 271.07 | 34.43 | 164 | 78 | 77.46 | 133.29 | 27.44 | 49.63 |
| 25 | 19 | 51 | 43.23 | 270.48 | 37.08 | 170 | 78 | 78.02 | 134.25 | 27.37 | 49.64 |
| 25 | 19 | 51 | 43.08 | 269.86 | 39.76 | 176 | 78 | 79.67 | 137.11 | 26.15 | 47.99 |
| 25 | 19 | 51 | 42.93 | 269.20 | 42.47 | 183 | 78 | 82.28 | 141.61 | 26.40 | 47.55 |
| 25 | 19 | 51 | 43.70 | 271.52 | 31.77 | 159 | 78 | 68.97 | 118.65 | 25.66 | 47.52 |
| 25 | 19 | 51 | 43.58 | 270.96 | 34.40 | 164 | 78 | 73.87 | 127.11 | 25.85 | 47.53 |
| 25 | 19 | 51 | 43.45 | 270.38 | 37.05 | 170 | 78 | 75.98 | 130.73 | 26.31 | 48.54 |
| 25 | 19 | 51 | 43.31 | 269.76 | 39.73 | 176 | 78 | 77.75 | 133.79 | 25.44 | 47.09 |
| 25 | 19 | 51 | 43.15 | 269.09 | 42.44 | 183 | 78 | 79.89 | 137.47 | 25.60 | 47.47 |
| 25 | 19 | 51 | 44.04 | 271.95 | 29.13 | 155 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 25 | 19 | 51 | 43.93 | 271.42 | 31.74 | 159 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 25 | 19 | 51 | 43.81 | 270.86 | 34.37 | 164 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 25 | 19 | 51 | 43.68 | 270.27 | 37.02 | 169 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 25 | 19 | 51 | 43.53 | 269.66 | 39.67 | 176 | 78***** | 78***** | 78***** | 78***** | 78***** |
| 25 | 19 | 51 | 44.26 | 271.83 | 29.19 | 155 | 78 | 61.40 | 105.75 | 25.43 | 46.36 |
| 25 | 19 | 51 | 44.15 | 271.29 | 31.80 | 159 | 78 | 65.43 | 112.56 | 25.83 | 47.03 |
| 25 | 19 | 51 | 44.03 | 270.73 | 34.43 | 164 | 78 | 65.59 | 112.83 | 26.81 | 48.69 |
| 25 | 19 | 51 | 43.90 | 270.14 | 37.08 | 170 | 78 | 70.18 | 120.74 | 26.04 | 47.46 |
| 25 | 19 | 51 | 43.75 | 269.52 | 39.76 | 176 | 78 | 73.61 | 126.66 | 25.18 | 46.32 |
| 25 | 19 | 51 | 44.49 | 271.72 | 29.16 | 155 | 78 | 54.54 | 93.90 | 25.85 | 47.93 |
| 25 | 19 | 51 | 44.37 | 271.19 | 31.77 | 159 | 78 | 62.01 | 106.65 | 25.81 | 47.63 |
| 25 | 19 | 51 | 44.25 | 270.63 | 34.40 | 164 | 78 | 61.69 | 106.10 | 26.79 | 49.37 |
| 25 | 19 | 51 | 44.12 | 270.04 | 37.05 | 169 | 78 | 64.98 | 111.77 | 26.46 | 48.98 |
| 25 | 19 | 51 | 43.98 | 269.41 | 39.73 | 176 | 78 | 67.46 | 116.05 | 25.77 | 48.02 |
| 25 | 19 | 51 | 44.70 | 271.57 | 29.37 | 155 | 78 | 50.76 | 87.35 | 27.13 | 50.25 |
| 25 | 19 | 51 | 44.59 | 271.03 | 31.98 | 159 | 78 | 57.87 | 99.50 | 26.31 | 48.63 |
| 25 | 19 | 51 | 44.47 | 270.47 | 34.61 | 164 | 78 | 56.72 | 97.52 | 27.64 | 50.76 |
| 25 | 19 | 51 | 44.33 | 269.87 | 37.26 | 170 | 78 | 59.53 | 102.37 | 27.92 | 51.36 |
| 25 | 19 | 51 | 44.19 | 269.25 | 39.91 | 176 | 78 | 62.61 | 107.67 | 27.14 | 50.33 |
| 25 | 19 | 51 | 44.94 | 271.49 | 29.22 | 155 | 78 | 46.58 | 80.14 | 29.16 | 53.42 |
| 25 | 19 | 51 | 44.82 | 270.96 | 31.80 | 159 | 78 | 50.01 | 85.96 | 28.34 | 52.02 |
| 25 | 19 | 51 | 44.70 | 270.39 | 34.43 | 164 | 78 | 51.83 | 89.09 | 29.06 | 53.44 |
| 25 | 19 | 51 | 44.57 | 269.80 | 37.08 | 169 | 78 | 55.00 | 94.55 | 29.34 | 53.93 |
| 25 | 19 | 51 | 44.42 | 269.16 | 39.76 | 176 | 78 | 59.85 | 102.92 | 27.95 | 51.79 |
| 25 | 19 | 51 | 45.16 | 271.39 | 29.16 | 155 | 78 | 38.82 | 66.74 | 32.66 | 60.24 |
| 25 | 19 | 51 | 45.05 | 270.85 | 31.77 | 159 | 78 | 37.86 | 64.99 | 32.37 | 59.85 |
| 25 | 19 | 51 | 44.93 | 270.28 | 34.40 | 164 | 78 | 43.82 | 75.26 | 31.17 | 57.93 |
| 25 | 19 | 51 | 44.79 | 269.69 | 37.05 | 169 | 78 | 48.04 | 82.54 | 30.84 | 57.56 |
| 25 | 19 | 51 | 44.64 | 269.05 | 39.73 | 176 | 78 | 57.62 | 99.06 | 28.24 | 53.26 |
| 25 | 19 | 51 | 45.14 | 270.15 | 31.49 | 164 | 78 | 36.67 | 63.00 | 35.59 | 65.77 |
| 25 | 19 | 51 | 45.01 | 269.55 | 37.14 | 170 | 78 | 44.10 | 75.82 | 33.94 | 63.27 |
| 26 | 9 | 52 | 45.17 | 270.90 | 31.68 | 156 | 77 | .19 | .00 | 38.73 | 70.90 |
| 26 | 9 | 52 | 45.04 | 271.45 | 34.30 | 161 | 77 | .22 | .00 | 39.30 | 71.88 |
| 26 | 9 | 52 | 45.16 | 269.79 | 26.70 | 149 | 77 | .08 | .00 | 36.24 | 66.84 |
| 26 | 9 | 52 | 45.05 | 270.30 | 29.28 | 153 | 77 | .08 | .00 | 37.77 | 69.52 |
| 26 | 9 | 52 | 44.94 | 270.82 | 31.85 | 157 | 77 | .08 | .00 | 39.12 | 71.60 |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|----|----|-------|--------|-------|------|---------|-------|--------|-------|-------|
| 26 | 9 | 52 | 44.81 | 271.38 | 34.48 | 162 | 77 | .12 | .00 | 39.61 | 72.75 |
| 26 | 9 | 52 | 44.68 | 271.96 | 37.12 | 167 | 77 | .08 | .00 | 40.08 | 73.49 |
| 26 | 9 | 52 | 45.04 | 269.16 | 23.95 | 146 | 77 | -.36 | .00 | 37.55 | 69.35 |
| 26 | 9 | 52 | 44.94 | 269.64 | 26.52 | 149 | 77 | -.45 | .00 | 37.02 | 68.30 |
| 26 | 9 | 52 | 44.83 | 270.15 | 29.11 | 152 | 77 | -.47 | .00 | 37.51 | 69.00 |
| 26 | 9 | 52 | 44.72 | 270.68 | 31.71 | 157 | 77 | -.48 | .00 | 39.21 | 71.62 |
| 26 | 9 | 52 | 44.59 | 271.23 | 34.33 | 161 | 77 | -.45 | .00 | 40.39 | 73.67 |
| 26 | 9 | 52 | 44.46 | 271.81 | 36.97 | 167 | 77 | -.50 | .00 | 40.61 | 74.22 |
| 26 | 9 | 53 | 44.81 | 269.07 | 24.04 | 146 | 77***** | ***** | ***** | ***** | ***** |
| 26 | 9 | 53 | 44.71 | 269.55 | 26.61 | 149 | 77***** | ***** | ***** | ***** | ***** |
| 26 | 9 | 53 | 44.60 | 270.05 | 29.19 | 153 | 77***** | ***** | ***** | ***** | ***** |
| 26 | 9 | 53 | 44.49 | 270.58 | 31.79 | 157 | 77***** | ***** | ***** | ***** | ***** |
| 26 | 9 | 53 | 44.36 | 271.13 | 34.42 | 161 | 77***** | ***** | ***** | ***** | ***** |
| 26 | 9 | 53 | 44.23 | 271.71 | 37.06 | 167 | 77***** | ***** | ***** | ***** | ***** |
| 26 | 9 | 53 | 44.48 | 269.46 | 26.70 | 149 | 77 | -1.26 | .00 | 36.73 | 69.63 |
| 26 | 9 | 53 | 44.37 | 269.96 | 29.28 | 153 | 77 | -1.26 | .00 | 36.79 | 69.73 |
| 26 | 9 | 53 | 44.26 | 270.48 | 31.85 | 157 | 77 | -1.15 | .00 | 39.45 | 74.76 |
| 26 | 9 | 53 | 44.14 | 271.03 | 34.47 | 162 | 77 | -1.11 | .00 | 40.37 | 76.51 |
| 26 | 9 | 53 | 44.00 | 271.61 | 37.12 | 167 | 77 | -1.14 | .00 | 40.06 | 75.92 |
| 26 | 9 | 53 | 44.25 | 269.36 | 26.75 | 149 | 77 | -.68 | .00 | 36.29 | 67.22 |
| 26 | 9 | 53 | 44.14 | 269.86 | 29.34 | 153 | 77 | -.78 | .00 | 37.14 | 68.66 |
| 26 | 9 | 53 | 44.03 | 270.39 | 31.94 | 157 | 77 | -.65 | .00 | 39.37 | 72.72 |
| 26 | 9 | 53 | 43.91 | 270.94 | 34.56 | 162 | 77 | -.60 | .00 | 40.03 | 74.06 |
| 26 | 9 | 53 | 43.77 | 271.52 | 37.21 | 167 | 77 | -.49 | .00 | 39.82 | 73.56 |
| 26 | 9 | 53 | 44.04 | 269.18 | 26.38 | 149 | 77 | -.03 | .00 | 38.19 | 69.23 |
| 26 | 9 | 53 | 43.93 | 269.68 | 28.96 | 152 | 77 | -.03 | .00 | 38.76 | 70.47 |
| 26 | 9 | 53 | 43.82 | 270.20 | 31.56 | 156 | 77 | -.04 | .00 | 40.98 | 74.15 |
| 26 | 9 | 53 | 43.70 | 270.74 | 34.18 | 161 | 77 | .00 | .00 | 42.07 | 75.84 |
| 26 | 9 | 53 | 43.57 | 271.32 | 36.82 | 166 | 77 | .08 | .00 | 41.67 | 75.49 |
| 26 | 9 | 53 | 43.43 | 271.92 | 39.46 | 172 | 77 | .07 | .00 | 42.12 | 76.32 |
| 26 | 9 | 53 | 43.80 | 269.12 | 26.58 | 149 | 77 | .23 | .00 | 36.89 | 67.91 |
| 26 | 9 | 53 | 43.70 | 269.61 | 29.16 | 153 | 77 | .24 | .00 | 37.47 | 69.16 |
| 26 | 9 | 53 | 43.59 | 270.12 | 31.73 | 157 | 77 | .12 | .00 | 39.60 | 72.49 |
| 26 | 9 | 53 | 43.47 | 270.67 | 34.35 | 161 | 77 | .16 | .00 | 39.74 | 72.93 |
| 26 | 9 | 53 | 43.34 | 271.24 | 37.00 | 167 | 77 | .13 | .00 | 40.13 | 73.31 |
| 26 | 9 | 53 | 43.19 | 271.85 | 39.67 | 173 | 77 | .12 | .00 | 42.15 | 76.82 |
| 26 | 9 | 53 | 43.48 | 269.47 | 28.99 | 152 | 77 | .07 | .00 | 37.97 | 69.93 |
| 26 | 9 | 53 | 43.37 | 269.99 | 31.59 | 156 | 77 | .07 | .00 | 39.67 | 72.73 |
| 26 | 9 | 53 | 43.25 | 270.53 | 34.21 | 161 | 77 | .11 | .00 | 39.64 | 72.45 |
| 26 | 9 | 53 | 43.12 | 271.10 | 36.85 | 166 | 77 | .08 | .00 | 40.81 | 74.62 |
| 26 | 9 | 53 | 42.98 | 271.70 | 39.52 | 173 | 77 | .19 | .00 | 43.44 | 79.04 |
| 26 | 9 | 53 | 43.24 | 269.43 | 29.31 | 153 | 77 | .21 | .00 | 37.82 | 69.79 |
| 26 | 9 | 53 | 43.13 | 269.94 | 31.91 | 157 | 77 | .10 | .00 | 39.77 | 72.94 |
| 26 | 9 | 53 | 43.01 | 270.49 | 34.53 | 162 | 77 | .14 | .00 | 40.61 | 74.28 |
| 26 | 9 | 53 | 42.88 | 271.05 | 37.15 | 167 | 77 | .23 | .00 | 42.57 | 77.72 |
| 26 | 9 | 53 | 42.73 | 271.67 | 39.85 | 173 | 77 | .35 | .00 | 43.63 | 79.60 |
| 26 | 9 | 53 | 43.02 | 269.29 | 29.16 | 153 | 77 | .19 | .00 | 37.48 | 68.89 |
| 26 | 9 | 53 | 42.91 | 269.80 | 31.73 | 157 | 77 | .19 | .00 | 40.05 | 72.94 |
| 26 | 9 | 53 | 42.79 | 270.34 | 34.35 | 161 | 77 | .23 | .00 | 41.58 | 75.71 |
| 26 | 9 | 53 | 42.79 | 269.22 | 29.33 | 153 | 77***** | ***** | ***** | ***** | ***** |
| 26 | 19 | 40 | 43.01 | 271.86 | 42.62 | 184 | 78 | 72.62 | 125.22 | 43.83 | 77.88 |
| 26 | 19 | 40 | 43.25 | 271.81 | 42.35 | 183 | 78 | 73.27 | 126.35 | 43.76 | 78.32 |
| 26 | 19 | 40 | 43.47 | 271.70 | 42.32 | 183 | 78 | 77.57 | 133.78 | 43.38 | 76.97 |
| 26 | 19 | 40 | 43.70 | 271.60 | 42.25 | 183 | 78 | 73.59 | 135.54 | 42.07 | 73.97 |
| 26 | 19 | 40 | 43.90 | 271.39 | 42.59 | 184 | 78 | 78.08 | 134.67 | 41.56 | 73.56 |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|----|----|-------|--------|-------|------|---------|-------|--------|-------|-------|
| 26 | 19 | 40 | 44.14 | 271.34 | 42.32 | 183 | 78***** | ***** | ***** | ***** | ***** |
| 26 | 19 | 40 | 44.50 | 271.82 | 39.91 | 176 | 78 | 74.23 | 128.02 | 41.93 | 74.05 |
| 26 | 19 | 40 | 44.34 | 271.14 | 42.62 | 184 | 78 | 76.60 | 132.11 | 40.95 | 72.21 |
| 26 | 19 | 40 | 44.73 | 271.71 | 39.88 | 176 | 78 | 71.72 | 123.69 | 41.09 | 72.91 |
| 26 | 19 | 40 | 44.57 | 271.03 | 42.59 | 184 | 78 | 73.02 | 125.94 | 40.54 | 71.95 |
| 26 | 19 | 40 | 44.96 | 271.63 | 39.73 | 176 | 78 | 61.92 | 106.76 | 42.14 | 75.56 |
| 26 | 19 | 40 | 44.80 | 270.95 | 42.44 | 183 | 78 | 60.95 | 105.10 | 41.68 | 74.92 |
| 26 | 19 | 41 | 45.17 | 271.46 | 39.91 | 176 | 78 | 52.74 | 90.93 | 43.98 | 77.97 |
| 26 | 19 | 41 | 45.01 | 270.77 | 42.62 | 184 | 78 | 44.58 | 76.83 | 45.17 | 80.27 |
| 27 | 9 | 41 | 45.17 | 271.93 | 23.81 | 146 | 77 | .18 | .00 | 43.33 | 78.83 |
| 27 | 9 | 42 | 45.12 | 270.94 | 18.91 | 141 | 77 | .28 | .00 | 43.23 | 79.32 |
| 27 | 9 | 42 | 45.03 | 271.39 | 21.45 | 143 | 77 | .21 | .00 | 43.67 | 79.75 |
| 27 | 9 | 42 | 44.93 | 271.86 | 24.01 | 146 | 77 | .20 | .00 | 42.55 | 77.80 |
| 27 | 9 | 42 | 45.14 | 269.51 | 11.18 | 136 | 77 | .21 | .00 | 44.01 | 80.31 |
| 27 | 9 | 42 | 45.06 | 269.94 | 13.70 | 137 | 77 | .16 | .00 | 43.37 | 79.51 |
| 27 | 9 | 42 | 44.98 | 270.37 | 16.23 | 139 | 77 | .13 | .00 | 43.50 | 79.63 |
| 27 | 9 | 42 | 44.89 | 270.81 | 18.77 | 141 | 77 | .22 | .00 | 43.85 | 80.12 |
| 27 | 9 | 42 | 44.80 | 271.26 | 21.28 | 143 | 77 | .15 | .00 | 43.85 | 79.83 |
| 27 | 9 | 42 | 44.71 | 271.72 | 23.84 | 146 | 77 | .15 | .00 | 42.12 | 77.16 |
| 27 | 9 | 42 | 44.91 | 269.41 | 11.15 | 136 | 77 | .21 | .00 | 43.83 | 80.32 |
| 27 | 9 | 42 | 44.83 | 269.83 | 13.64 | 137 | 77 | .16 | .00 | 43.36 | 79.71 |
| 27 | 9 | 42 | 44.75 | 270.26 | 16.17 | 139 | 77 | .13 | .00 | 44.02 | 80.54 |
| 27 | 9 | 42 | 44.67 | 270.70 | 18.71 | 141 | 77 | .22 | .00 | 44.28 | 80.67 |
| 27 | 9 | 42 | 44.58 | 271.15 | 21.25 | 143 | 77 | .15 | .00 | 43.76 | 79.66 |
| 27 | 9 | 42 | 44.48 | 271.61 | 23.81 | 146 | 77 | .14 | .00 | 41.94 | 76.81 |
| 27 | 9 | 42 | 44.68 | 269.34 | 11.32 | 136 | 77 | .15 | .00 | 43.63 | 80.07 |
| 27 | 9 | 42 | 44.60 | 269.76 | 13.84 | 137 | 77 | .22 | .00 | 43.69 | 79.99 |
| 27 | 9 | 42 | 44.52 | 270.19 | 16.37 | 139 | 77 | .07 | .00 | 44.08 | 80.47 |
| 27 | 9 | 42 | 44.43 | 270.63 | 18.91 | 141 | 77 | .04 | .00 | 44.26 | 80.60 |
| 27 | 9 | 42 | 44.34 | 271.08 | 21.45 | 143 | 77 | -.02 | .00 | 43.57 | 79.41 |
| 27 | 9 | 42 | 44.25 | 271.54 | 24.01 | 146 | 77 | -.03 | .00 | 41.74 | 76.74 |
| 27 | 9 | 42 | 44.44 | 269.28 | 11.52 | 136 | 77***** | ***** | ***** | ***** | ***** |
| 27 | 9 | 42 | 44.36 | 269.70 | 14.04 | 137 | 77***** | ***** | ***** | ***** | ***** |
| 27 | 9 | 42 | 44.28 | 270.13 | 16.57 | 139 | 77***** | ***** | ***** | ***** | ***** |
| 27 | 9 | 42 | 44.20 | 270.56 | 19.11 | 141 | 77***** | ***** | ***** | ***** | ***** |
| 27 | 9 | 42 | 44.11 | 271.01 | 21.65 | 143 | 77***** | ***** | ***** | ***** | ***** |
| 27 | 9 | 42 | 44.02 | 271.47 | 24.18 | 146 | 77***** | ***** | ***** | ***** | ***** |
| 27 | 9 | 42 | 43.92 | 271.95 | 26.75 | 149 | 77***** | ***** | ***** | ***** | ***** |
| 27 | 9 | 42 | 44.22 | 269.16 | 11.37 | 136 | 77 | .02 | .00 | 43.98 | 80.59 |
| 27 | 9 | 42 | 44.14 | 269.57 | 13.87 | 137 | 77 | -.03 | .00 | 44.20 | 80.52 |
| 27 | 9 | 42 | 44.06 | 270.00 | 16.40 | 139 | 77 | -.06 | .00 | 44.60 | 81.17 |
| 27 | 9 | 42 | 43.98 | 270.43 | 18.94 | 141 | 77 | -.09 | .00 | 44.43 | 80.94 |
| 27 | 9 | 42 | 43.89 | 270.88 | 21.48 | 143 | 77 | -.04 | .00 | 43.73 | 79.93 |
| 27 | 9 | 42 | 43.79 | 271.34 | 24.04 | 146 | 77 | -.04 | .00 | 42.17 | 77.26 |
| 27 | 9 | 42 | 43.70 | 271.82 | 26.61 | 149 | 77 | -.13 | .00 | 41.71 | 76.34 |
| 27 | 9 | 42 | 43.99 | 269.07 | 11.43 | 136 | 77 | .31 | .00 | 44.60 | 81.30 |
| 27 | 9 | 42 | 43.91 | 269.49 | 13.95 | 137 | 77 | .26 | .00 | 44.74 | 81.58 |
| 27 | 9 | 42 | 43.83 | 269.91 | 16.48 | 139 | 77 | .34 | .00 | 44.88 | 81.87 |
| 27 | 9 | 42 | 43.74 | 270.35 | 19.02 | 141 | 77 | .20 | .00 | 44.53 | 81.11 |
| 27 | 9 | 42 | 43.66 | 270.79 | 21.57 | 143 | 77 | .13 | .00 | 43.92 | 79.92 |
| 27 | 9 | 42 | 43.56 | 271.25 | 24.12 | 146 | 77 | .13 | .00 | 42.54 | 77.60 |
| 27 | 9 | 42 | 43.46 | 271.73 | 26.69 | 149 | 77 | .05 | .00 | 41.98 | 76.86 |
| 27 | 9 | 42 | 43.68 | 269.39 | 13.93 | 137 | 77 | .30 | .00 | 44.51 | 81.15 |
| 27 | 9 | 42 | 43.60 | 269.81 | 16.45 | 139 | 77 | .15 | .00 | 44.38 | 81.26 |
| 27 | 9 | 42 | 43.52 | 270.24 | 18.99 | 141 | 77 | .12 | .00 | 44.30 | 80.85 |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|---|----|-------|--------|-------|------|------|-------|-------|-------|-------|
| 27 | 9 | 42 | 43.43 | 270.68 | 21.51 | 143 | 77 | .06 | .00 | 44.04 | 80.20 |
| 27 | 9 | 42 | 43.34 | 271.14 | 24.07 | 146 | 77 | .17 | .00 | 42.48 | 77.70 |
| 27 | 9 | 42 | 43.24 | 271.61 | 26.64 | 149 | 77 | .20 | .00 | 41.58 | 76.43 |
| 27 | 9 | 42 | 43.45 | 269.31 | 14.01 | 137 | 77 | .21 | .00 | 44.64 | 81.27 |
| 27 | 9 | 42 | 43.37 | 269.72 | 16.51 | 139 | 77 | .17 | .00 | 44.43 | 81.02 |
| 27 | 9 | 42 | 43.29 | 270.15 | 19.05 | 141 | 77 | .15 | .00 | 44.08 | 80.43 |
| 27 | 9 | 42 | 43.20 | 270.60 | 21.59 | 143 | 77 | .20 | .00 | 44.08 | 80.32 |
| 27 | 9 | 42 | 43.11 | 271.05 | 24.15 | 146 | 77 | .19 | .00 | 42.52 | 77.84 |
| 27 | 9 | 42 | 43.01 | 271.52 | 26.72 | 149 | 77 | .22 | .00 | 41.97 | 76.91 |
| 27 | 9 | 42 | 43.23 | 269.18 | 13.84 | 137 | 77 | .20 | .00 | 44.70 | 81.59 |
| 27 | 9 | 42 | 43.15 | 269.60 | 16.37 | 139 | 77 | .17 | .00 | 44.49 | 80.99 |
| 27 | 9 | 42 | 43.06 | 270.03 | 18.91 | 141 | 77 | .14 | .00 | 44.49 | 81.12 |
| 27 | 9 | 42 | 42.98 | 270.47 | 21.45 | 143 | 77 | .07 | .00 | 44.23 | 80.64 |
| 27 | 9 | 42 | 42.88 | 270.92 | 24.01 | 146 | 77 | .07 | .00 | 42.85 | 78.53 |
| 27 | 9 | 42 | 42.79 | 271.39 | 26.58 | 149 | 77 | .10 | .00 | 42.12 | 77.05 |
| 27 | 9 | 42 | 43.00 | 269.08 | 13.81 | 137 | 77 | .40 | .00 | 44.83 | 81.61 |
| 27 | 9 | 42 | 42.92 | 269.50 | 16.34 | 139 | 77 | .25 | .00 | 44.61 | 81.18 |
| 27 | 9 | 42 | 42.84 | 269.93 | 18.88 | 141 | 77 | .10 | .00 | 44.61 | 80.95 |
| 27 | 9 | 42 | 42.75 | 270.37 | 21.42 | 143 | 77 | .15 | .00 | 44.27 | 80.66 |
| 28 | 9 | 31 | 45.17 | 271.44 | 6.51 | 134 | 77 | .35 | .00 | 43.48 | 78.86 |
| 28 | 9 | 31 | 45.09 | 271.85 | 9.03 | 135 | 77 | .42 | .00 | 43.85 | 79.50 |
| 28 | 9 | 31 | 45.15 | 270.13 | 1.07 | 133 | 77 | -.12 | .00 | 42.94 | 77.88 |
| 28 | 9 | 31 | 45.08 | 270.52 | 1.47 | 133 | 77 | -.16 | .00 | 43.01 | 78.04 |
| 28 | 9 | 31 | 45.01 | 270.93 | 3.97 | 133 | 77 | -.15 | .00 | 43.10 | 78.20 |
| 28 | 9 | 31 | 44.94 | 271.34 | 6.48 | 134 | 77 | -.18 | .00 | 43.64 | 78.87 |
| 28 | 9 | 31 | 44.87 | 271.75 | 9.00 | 135 | 77 | -.25 | .00 | 44.10 | 79.68 |
| 28 | 9 | 31 | 45.05 | 269.18 | 6.22 | 134 | 77 | -1.14 | .00 | 41.92 | 76.08 |
| 28 | 9 | 31 | 44.99 | 269.59 | 3.71 | 133 | 77 | -1.10 | .00 | 42.54 | 77.22 |
| 28 | 9 | 31 | 44.92 | 270.02 | 1.21 | 133 | 77 | -1.10 | .00 | 42.67 | 77.36 |
| 28 | 9 | 31 | 44.85 | 270.41 | 1.33 | 133 | 77 | -1.12 | .00 | 42.74 | 77.53 |
| 28 | 9 | 31 | 44.79 | 270.82 | 3.83 | 133 | 77 | -.98 | .00 | 42.66 | 77.51 |
| 28 | 9 | 31 | 44.71 | 271.22 | 6.34 | 134 | 77 | -.99 | .00 | 43.20 | 78.33 |
| 28 | 9 | 31 | 44.64 | 271.63 | 8.86 | 135 | 77 | -1.17 | .00 | 43.67 | 78.99 |
| 28 | 9 | 31 | 44.82 | 269.13 | 6.02 | 134 | 77 | -.66 | .00 | 42.79 | 77.71 |
| 28 | 9 | 31 | 44.75 | 269.54 | 3.51 | 133 | 77 | -.73 | .00 | 42.98 | 77.95 |
| 28 | 9 | 31 | 44.68 | 269.96 | 1.02 | 133 | 77 | -.71 | .00 | 42.93 | 77.92 |
| 28 | 9 | 31 | 44.62 | 270.35 | 1.53 | 133 | 77 | -.72 | .00 | 43.01 | 78.08 |
| 28 | 9 | 31 | 44.55 | 270.76 | 4.03 | 133 | 77 | -.80 | .00 | 43.01 | 78.07 |
| 28 | 9 | 31 | 44.48 | 271.16 | 6.51 | 134 | 77 | -.67 | .00 | 43.56 | 78.92 |
| 28 | 9 | 31 | 44.41 | 271.57 | 9.03 | 135 | 77 | -.59 | .00 | 43.93 | 79.56 |
| 28 | 9 | 31 | 44.33 | 271.98 | 11.54 | 136 | 77 | -.59 | .00 | 44.29 | 80.13 |
| 28 | 9 | 31 | 44.53 | 269.40 | 3.85 | 133 | 77 | .20 | .00 | 43.54 | 78.65 |
| 28 | 9 | 31 | 44.47 | 269.79 | 1.41 | 133 | 77 | .32 | .00 | 43.50 | 78.61 |
| 28 | 9 | 31 | 44.40 | 270.20 | 1.14 | 133 | 77 | .42 | .00 | 43.57 | 78.77 |
| 28 | 9 | 31 | 44.33 | 270.60 | 3.64 | 133 | 77 | .32 | .00 | 43.66 | 78.94 |
| 28 | 9 | 31 | 44.26 | 271.00 | 6.15 | 134 | 77 | .31 | .00 | 44.12 | 79.58 |
| 28 | 9 | 31 | 44.19 | 271.41 | 8.66 | 135 | 77 | .26 | .00 | 44.75 | 80.58 |
| 28 | 9 | 31 | 44.11 | 271.82 | 11.18 | 136 | 77 | .24 | .00 | 44.85 | 80.96 |
| 28 | 9 | 31 | 44.29 | 269.36 | 3.57 | 133 | 77 | .20 | .00 | 43.84 | 78.96 |
| 28 | 9 | 31 | 44.22 | 269.77 | 1.10 | 133 | 77 | .21 | .00 | 43.89 | 79.10 |
| 28 | 9 | 31 | 44.16 | 270.16 | 1.44 | 133 | 77 | .30 | .00 | 43.96 | 79.27 |
| 28 | 9 | 31 | 44.09 | 270.56 | 3.95 | 133 | 77 | .20 | .00 | 43.88 | 79.25 |
| 28 | 9 | 31 | 44.02 | 270.96 | 6.46 | 134 | 77 | .31 | .00 | 44.42 | 80.07 |
| 28 | 9 | 31 | 43.95 | 271.37 | 8.97 | 135 | 77 | .26 | .00 | 45.14 | 81.07 |
| 28 | 9 | 31 | 43.87 | 271.78 | 11.49 | 136 | 77 | .24 | .00 | 45.33 | 81.46 |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|---|----|-------|--------|-------|------|---------|-------|-------|-------|-------|
| 28 | 9 | 31 | 44.06 | 269.25 | 3.71 | 133 | 77***** | ***** | ***** | ***** | ***** |
| 28 | 9 | 31 | 44.00 | 269.66 | 1.24 | 133 | 77***** | ***** | ***** | ***** | ***** |
| 28 | 9 | 31 | 43.93 | 270.05 | 1.31 | 133 | 77***** | ***** | ***** | ***** | ***** |
| 28 | 9 | 31 | 43.87 | 270.45 | 3.80 | 133 | 77***** | ***** | ***** | ***** | ***** |
| 28 | 9 | 31 | 43.80 | 270.84 | 6.29 | 134 | 77***** | ***** | ***** | ***** | ***** |
| 28 | 9 | 31 | 43.72 | 271.25 | 8.80 | 135 | 77***** | ***** | ***** | ***** | ***** |
| 28 | 9 | 31 | 43.65 | 271.66 | 11.32 | 136 | 77***** | ***** | ***** | ***** | ***** |
| 28 | 9 | 31 | 43.83 | 269.19 | 3.51 | 133 | 77 | .30 | .00 | 44.71 | 80.46 |
| 28 | 9 | 31 | 43.76 | 269.60 | 1.07 | 133 | 77 | .31 | .00 | 44.84 | 80.61 |
| 28 | 9 | 31 | 43.70 | 269.98 | 1.47 | 133 | 77 | .40 | .00 | 44.83 | 80.77 |
| 28 | 9 | 31 | 43.63 | 270.38 | 3.97 | 134 | 77 | .31 | .00 | 44.75 | 80.58 |
| 28 | 9 | 31 | 43.56 | 270.78 | 6.48 | 134 | 77 | .30 | .00 | 44.85 | 80.85 |
| 28 | 9 | 31 | 43.49 | 271.19 | 9.00 | 135 | 77 | .36 | .00 | 45.05 | 81.13 |
| 28 | 9 | 31 | 43.42 | 271.59 | 11.52 | 136 | 77 | .23 | .00 | 45.24 | 81.16 |
| 28 | 9 | 31 | 43.60 | 269.10 | 3.57 | 133 | 77 | -.15 | .00 | 44.50 | 80.17 |
| 28 | 9 | 31 | 43.53 | 269.51 | 1.10 | 133 | 77 | -.16 | .00 | 44.63 | 80.49 |
| 28 | 9 | 31 | 43.47 | 269.89 | 1.44 | 133 | 77 | -.20 | .00 | 44.70 | 80.65 |
| 28 | 9 | 31 | 43.40 | 270.29 | 3.94 | 133 | 77 | -.19 | .00 | 44.70 | 80.46 |
| 28 | 9 | 31 | 43.33 | 270.69 | 6.45 | 134 | 77 | -.09 | .00 | 44.98 | 80.73 |
| 28 | 9 | 31 | 43.26 | 271.09 | 8.97 | 135 | 77 | -.16 | .00 | 45.09 | 81.01 |
| 28 | 9 | 31 | 43.19 | 271.50 | 11.49 | 136 | 77 | -.19 | .00 | 45.02 | 81.03 |
| 28 | 9 | 31 | 43.11 | 271.91 | 14.01 | 137 | 77 | -.25 | .00 | 44.87 | 80.87 |
| 28 | 9 | 31 | 43.37 | 269.02 | 3.51 | 133 | 77 | -.54 | .00 | 44.08 | 79.43 |
| 28 | 9 | 31 | 43.30 | 269.44 | 1.02 | 133 | 77 | -.53 | .00 | 44.38 | 79.94 |
| 28 | 9 | 31 | 43.24 | 269.82 | 1.53 | 133 | 77 | -.54 | .00 | 44.45 | 80.29 |
| 28 | 9 | 31 | 43.17 | 270.21 | 4.03 | 134 | 77 | -.51 | .00 | 44.28 | 79.92 |
| 28 | 9 | 31 | 43.10 | 270.61 | 6.51 | 134 | 77 | -.50 | .00 | 44.56 | 80.38 |
| 28 | 9 | 31 | 43.03 | 271.01 | 9.02 | 135 | 77 | -.55 | .00 | 44.68 | 80.48 |
| 28 | 9 | 31 | 42.96 | 271.41 | 11.54 | 136 | 77 | -.55 | .00 | 44.43 | 79.98 |
| 28 | 9 | 31 | 42.88 | 271.82 | 14.07 | 137 | 77 | -.47 | .00 | 43.76 | 79.28 |
| 28 | 9 | 32 | 43.07 | 269.34 | 1.07 | 133 | 77 | -.12 | .00 | 44.94 | 80.86 |
| 28 | 9 | 32 | 43.01 | 269.72 | 1.47 | 133 | 77 | -.04 | .00 | 45.01 | 81.02 |
| 28 | 9 | 32 | 42.94 | 270.12 | 3.97 | 134 | 77 | -.15 | .00 | 44.93 | 80.82 |
| 28 | 9 | 32 | 42.87 | 270.51 | 6.48 | 134 | 77 | -.17 | .00 | 45.20 | 81.28 |
| 28 | 9 | 32 | 42.80 | 270.91 | 9.00 | 135 | 77 | -.12 | .00 | 45.05 | 80.84 |
| 28 | 9 | 32 | 42.73 | 271.32 | 11.51 | 136 | 77 | -.15 | .00 | 44.72 | 80.32 |
| 28 | 9 | 32 | 42.84 | 269.24 | 1.21 | 133 | 77 | -.62 | .00 | 43.87 | 79.43 |
| 28 | 9 | 32 | 42.78 | 269.61 | 1.33 | 133 | 77 | -.52 | .00 | 44.20 | 80.13 |
| 28 | 9 | 32 | 42.71 | 270.01 | 3.83 | 134 | 77 | -.60 | .00 | 44.21 | 80.12 |
| 29 | 9 | 20 | 45.19 | 270.21 | 16.13 | 139 | 77 | .36 | .00 | 43.78 | 79.93 |
| 29 | 9 | 20 | 45.13 | 270.65 | 13.60 | 137 | 77 | .34 | .00 | 43.77 | 79.95 |
| 29 | 9 | 20 | 45.06 | 271.08 | 11.08 | 136 | 77 | .26 | .00 | 44.23 | 80.64 |
| 29 | 9 | 20 | 45.00 | 271.50 | 8.56 | 135 | 77 | .33 | .00 | 45.03 | 81.87 |
| 29 | 9 | 20 | 44.94 | 271.91 | 6.08 | 134 | 77 | .28 | .00 | 45.65 | 82.56 |
| 29 | 9 | 20 | 45.08 | 269.22 | 21.21 | 143 | 77 | .22 | .00 | 42.88 | 78.75 |
| 29 | 9 | 20 | 45.02 | 269.68 | 18.67 | 141 | 77 | .14 | .00 | 43.42 | 79.46 |
| 29 | 9 | 20 | 44.96 | 270.13 | 16.13 | 139 | 77 | .24 | .00 | 43.74 | 79.94 |
| 29 | 9 | 20 | 44.90 | 270.57 | 13.60 | 137 | 77 | .21 | .00 | 43.73 | 80.14 |
| 29 | 9 | 20 | 44.83 | 270.99 | 11.08 | 136 | 77 | .25 | .00 | 44.54 | 81.19 |
| 29 | 9 | 20 | 44.77 | 271.41 | 8.59 | 135 | 77 | .21 | .00 | 45.52 | 82.96 |
| 29 | 9 | 20 | 44.71 | 271.82 | 6.08 | 134 | 77 | .28 | .00 | 45.79 | 83.11 |
| 29 | 9 | 20 | 44.85 | 269.10 | 21.47 | 143 | 77 | .21 | .00 | 43.21 | 79.22 |
| 29 | 9 | 20 | 44.79 | 269.56 | 18.93 | 141 | 77 | .13 | .00 | 43.75 | 80.10 |
| 29 | 9 | 20 | 44.73 | 270.00 | 16.42 | 139 | 77 | .23 | .00 | 43.99 | 80.40 |
| 29 | 9 | 20 | 44.67 | 270.44 | 13.89 | 137 | 77 | .20 | .00 | 43.97 | 80.42 |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|---|----|-------|--------|-------|------|---------|-------|-------|-------|-------|
| 29 | 9 | 20 | 44.61 | 270.86 | 11.36 | 136 | 77 | .24 | .00 | 44.95 | 82.01 |
| 29 | 9 | 20 | 44.55 | 271.28 | 8.85 | 135 | 77 | .20 | .00 | 45.93 | 83.42 |
| 29 | 9 | 20 | 44.48 | 271.70 | 6.33 | 134 | 77 | .27 | .00 | 45.85 | 83.04 |
| 29 | 9 | 20 | 44.62 | 269.03 | 21.41 | 143 | 77 | .17 | .00 | 43.29 | 79.51 |
| 29 | 9 | 20 | 44.56 | 269.49 | 18.87 | 141 | 77 | .20 | .00 | 43.91 | 80.41 |
| 29 | 9 | 20 | 44.50 | 269.94 | 16.33 | 139 | 77 | .18 | .00 | 44.07 | 80.71 |
| 29 | 9 | 20 | 44.44 | 270.37 | 13.80 | 137 | 77 | .16 | .00 | 43.96 | 80.55 |
| 29 | 9 | 20 | 44.37 | 270.80 | 11.28 | 136 | 77 | .20 | .00 | 45.21 | 82.49 |
| 29 | 9 | 20 | 44.31 | 271.21 | 8.76 | 135 | 77 | .27 | .00 | 45.84 | 83.37 |
| 29 | 9 | 20 | 44.25 | 271.62 | 6.28 | 134 | 77 | .22 | .00 | 45.41 | 82.45 |
| 29 | 9 | 20 | 44.32 | 269.45 | 18.67 | 141 | 77 | .21 | .00 | 44.30 | 80.78 |
| 29 | 9 | 20 | 44.26 | 269.90 | 16.13 | 139 | 77 | .31 | .00 | 44.46 | 81.08 |
| 29 | 9 | 20 | 44.20 | 270.33 | 13.60 | 137 | 77 | .29 | .00 | 44.44 | 81.11 |
| 29 | 9 | 20 | 44.14 | 270.75 | 11.08 | 136 | 77 | .33 | .00 | 45.42 | 82.51 |
| 29 | 9 | 20 | 44.08 | 271.16 | 8.59 | 135 | 77 | .28 | .00 | 45.97 | 83.03 |
| 29 | 9 | 20 | 44.01 | 271.57 | 6.08 | 134 | 77 | .35 | .00 | 45.80 | 82.47 |
| 29 | 9 | 20 | 43.95 | 271.97 | 3.57 | 133 | 77 | .27 | .00 | 45.43 | 81.95 |
| 29 | 9 | 20 | 44.09 | 269.35 | 18.81 | 141 | 77 | .22 | .00 | 44.25 | 80.77 |
| 29 | 9 | 20 | 44.03 | 269.79 | 16.30 | 139 | 77 | .20 | .00 | 44.40 | 81.07 |
| 29 | 9 | 20 | 43.97 | 270.22 | 13.75 | 137 | 77 | .18 | .00 | 44.38 | 81.09 |
| 29 | 9 | 20 | 43.91 | 270.64 | 11.25 | 136 | 77 | .22 | .00 | 44.93 | 81.78 |
| 29 | 9 | 20 | 43.85 | 271.06 | 8.73 | 135 | 77 | .17 | .00 | 44.86 | 81.58 |
| 29 | 9 | 20 | 43.79 | 271.46 | 6.22 | 134 | 77 | .13 | .00 | 44.96 | 81.55 |
| 29 | 9 | 20 | 43.72 | 271.87 | 3.71 | 133 | 77 | .28 | .00 | 43.37 | 78.88 |
| 29 | 9 | 20 | 43.86 | 269.27 | 18.87 | 141 | 77 | .26 | .00 | 44.17 | 80.87 |
| 29 | 9 | 20 | 43.80 | 269.71 | 16.33 | 139 | 77 | .36 | .00 | 44.41 | 81.35 |
| 29 | 9 | 20 | 43.74 | 270.14 | 13.80 | 137 | 77 | .22 | .00 | 44.48 | 81.37 |
| 29 | 9 | 20 | 43.68 | 270.56 | 11.28 | 136 | 77 | .26 | .00 | 44.50 | 81.16 |
| 29 | 9 | 20 | 43.62 | 270.97 | 8.76 | 135 | 77 | .33 | .00 | 43.30 | 78.81 |
| 29 | 9 | 20 | 43.56 | 271.37 | 6.25 | 134 | 77 | .28 | .00 | 43.40 | 79.14 |
| 29 | 9 | 20 | 43.49 | 271.78 | 3.74 | 133 | 77 | .20 | .00 | 40.85 | 74.48 |
| 29 | 9 | 21 | 43.63 | 269.21 | 18.78 | 141 | 77***** | ***** | ***** | ***** | ***** |
| 29 | 9 | 21 | 43.57 | 269.65 | 16.25 | 139 | 77***** | ***** | ***** | ***** | ***** |
| 29 | 9 | 21 | 43.51 | 270.07 | 13.72 | 137 | 77***** | ***** | ***** | ***** | ***** |
| 29 | 9 | 21 | 43.45 | 270.49 | 11.19 | 136 | 77***** | ***** | ***** | ***** | ***** |
| 29 | 9 | 21 | 43.38 | 270.90 | 8.71 | 135 | 77***** | ***** | ***** | ***** | ***** |
| 29 | 9 | 21 | 43.32 | 271.30 | 6.19 | 134 | 77***** | ***** | ***** | ***** | ***** |
| 29 | 9 | 21 | 43.26 | 271.70 | 3.68 | 133 | 77***** | ***** | ***** | ***** | ***** |
| 29 | 9 | 21 | 43.40 | 269.13 | 18.81 | 141 | 77 | -.17 | .00 | 44.43 | 81.37 |
| 29 | 9 | 21 | 43.34 | 269.56 | 16.30 | 139 | 77 | -.07 | .00 | 44.67 | 81.67 |
| 29 | 9 | 21 | 43.28 | 269.99 | 13.77 | 137 | 77 | -.09 | .00 | 43.44 | 79.36 |
| 29 | 9 | 21 | 43.22 | 270.40 | 11.25 | 136 | 77 | -.05 | .00 | 41.63 | 76.26 |
| 29 | 9 | 21 | 43.15 | 270.81 | 8.73 | 135 | 77 | -.10 | .00 | 41.04 | 75.34 |
| 29 | 9 | 21 | 43.09 | 271.22 | 6.22 | 134 | 77 | -.03 | .00 | 42.53 | 77.64 |
| 29 | 9 | 21 | 43.03 | 271.61 | 3.71 | 133 | 77 | .01 | .00 | 42.77 | 77.66 |
| 29 | 9 | 21 | 43.17 | 269.04 | 18.87 | 141 | 77 | .05 | .00 | 44.93 | 81.88 |
| 29 | 9 | 21 | 43.11 | 269.48 | 16.33 | 139 | 77 | .03 | .00 | 44.64 | 81.29 |
| 29 | 9 | 21 | 43.05 | 269.90 | 13.80 | 137 | 77 | .01 | .00 | 42.19 | 76.98 |
| 29 | 9 | 21 | 42.98 | 270.32 | 11.28 | 136 | 77 | .05 | .00 | 40.38 | 74.08 |
| 29 | 9 | 21 | 42.92 | 270.73 | 8.76 | 135 | 77 | .12 | .00 | 40.92 | 74.60 |
| 29 | 9 | 21 | 42.86 | 271.12 | 6.28 | 134 | 77 | .19 | .00 | 43.80 | 79.61 |
| 29 | 9 | 21 | 42.80 | 271.53 | 3.74 | 133 | 77 | .11 | .00 | 42.74 | 77.45 |
| 29 | 9 | 21 | 42.74 | 271.91 | 1.30 | 133 | 77 | .11 | .00 | 39.69 | 72.21 |
| 29 | 9 | 21 | 42.87 | 269.42 | 16.25 | 139 | 77 | .06 | .00 | 43.94 | 80.11 |
| 29 | 9 | 21 | 42.81 | 269.84 | 13.72 | 137 | 77 | .04 | .00 | 40.79 | 74.74 |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|----|----|-------|--------|-------|------|---------|-------|-------|-------|-------|
| 29 | 9 | 21 | 42.75 | 270.26 | 11.20 | 136 | 77 | .08 | .00 | 38.89 | 71.65 |
| 29 | 20 | 49 | 42.81 | 271.65 | 42.33 | 183 | 78***** | ***** | ***** | ***** | ***** |
| 29 | 20 | 49 | 42.75 | 270.96 | 39.62 | 175 | 78***** | ***** | ***** | ***** | ***** |
| 29 | 20 | 49 | 43.05 | 271.60 | 42.36 | 183 | 78 | 31.24 | 53.76 | 45.27 | 80.47 |
| 29 | 20 | 49 | 42.99 | 270.92 | 39.68 | 175 | 78 | 21.52 | 36.99 | 47.07 | 83.92 |
| 29 | 20 | 49 | 42.93 | 270.28 | 37.00 | 169 | 78 | 18.78 | 32.26 | 48.11 | 85.59 |
| 29 | 20 | 49 | 42.87 | 269.68 | 34.35 | 164 | 78 | 18.23 | 31.31 | 48.10 | 85.54 |
| 29 | 20 | 49 | 42.81 | 269.11 | 31.72 | 159 | 78 | 17.38 | 29.84 | 48.12 | 85.60 |
| 29 | 20 | 49 | 43.28 | 271.57 | 42.42 | 183 | 78 | 24.61 | 42.32 | 46.40 | 82.64 |
| 29 | 20 | 49 | 43.22 | 270.87 | 39.71 | 176 | 78 | 19.16 | 32.92 | 47.68 | 84.91 |
| 29 | 20 | 49 | 43.16 | 270.23 | 37.03 | 169 | 78 | 17.61 | 30.23 | 48.20 | 85.91 |
| 29 | 20 | 49 | 43.10 | 269.62 | 34.38 | 164 | 78 | 17.18 | 29.49 | 48.18 | 85.69 |
| 29 | 20 | 49 | 43.05 | 269.06 | 31.75 | 159 | 78 | 16.68 | 28.64 | 48.12 | 85.63 |
| 29 | 20 | 49 | 43.51 | 271.45 | 42.21 | 182 | 78 | 19.63 | 33.73 | 46.82 | 84.24 |
| 29 | 20 | 49 | 43.45 | 270.76 | 39.50 | 175 | 78 | 17.85 | 30.65 | 47.49 | 85.05 |
| 29 | 20 | 49 | 43.39 | 270.12 | 36.82 | 169 | 78 | 16.99 | 29.16 | 47.92 | 85.85 |
| 29 | 20 | 49 | 43.33 | 269.52 | 34.17 | 163 | 78 | 16.43 | 28.19 | 47.73 | 85.80 |
| 29 | 20 | 49 | 43.74 | 271.38 | 42.15 | 182 | 78 | 16.59 | 28.48 | 46.47 | 85.04 |
| 29 | 20 | 49 | 43.68 | 270.70 | 39.47 | 175 | 78 | 15.65 | 26.86 | 46.88 | 85.81 |
| 29 | 20 | 49 | 43.62 | 270.05 | 36.79 | 169 | 78 | 15.40 | 26.43 | 47.32 | 86.32 |
| 29 | 20 | 49 | 43.56 | 269.45 | 34.14 | 163 | 78 | 15.44 | 26.50 | 47.04 | 85.84 |
| 29 | 20 | 49 | 43.97 | 271.34 | 42.21 | 182 | 78 | 15.81 | 27.14 | 46.41 | 84.40 |
| 29 | 20 | 49 | 43.91 | 270.65 | 39.50 | 175 | 78 | 15.25 | 26.16 | 46.73 | 85.04 |
| 29 | 20 | 49 | 43.86 | 270.00 | 36.82 | 169 | 78 | 14.90 | 25.55 | 47.08 | 85.51 |
| 29 | 20 | 49 | 43.80 | 269.39 | 34.17 | 163 | 78 | 15.31 | 26.27 | 46.80 | 85.08 |
| 29 | 20 | 49 | 44.21 | 271.29 | 42.21 | 182 | 78 | 17.31 | 29.72 | 46.93 | 83.24 |
| 29 | 20 | 49 | 44.15 | 270.59 | 39.50 | 175 | 78 | 16.61 | 28.51 | 47.25 | 83.69 |
| 29 | 20 | 49 | 44.09 | 269.94 | 36.85 | 169 | 78 | 15.65 | 26.84 | 47.51 | 84.27 |
| 29 | 20 | 49 | 44.03 | 269.33 | 34.17 | 163 | 78 | 15.93 | 27.33 | 47.31 | 84.00 |
| 29 | 20 | 49 | 44.44 | 271.28 | 42.36 | 183 | 78 | 17.34 | 29.77 | 46.73 | 82.84 |
| 29 | 20 | 49 | 44.38 | 270.58 | 39.68 | 175 | 78 | 16.64 | 28.55 | 46.96 | 83.29 |
| 29 | 20 | 49 | 44.32 | 269.92 | 37.00 | 169 | 78 | 15.67 | 26.89 | 47.22 | 83.87 |
| 29 | 20 | 49 | 44.27 | 269.31 | 34.35 | 164 | 78 | 15.48 | 26.56 | 47.03 | 83.51 |
| 29 | 20 | 49 | 44.67 | 271.17 | 42.18 | 182 | 78***** | ***** | ***** | ***** | ***** |
| 29 | 20 | 49 | 44.61 | 270.47 | 39.47 | 175 | 78***** | ***** | ***** | ***** | ***** |
| 29 | 20 | 49 | 44.55 | 269.81 | 36.79 | 169 | 78***** | ***** | ***** | ***** | ***** |
| 29 | 20 | 49 | 44.49 | 269.20 | 34.14 | 163 | 78***** | ***** | ***** | ***** | ***** |
| 29 | 20 | 49 | 44.91 | 271.12 | 42.21 | 182 | 78 | 16.20 | 27.80 | 46.72 | 82.22 |
| 29 | 20 | 49 | 44.85 | 270.41 | 39.50 | 175 | 78 | 16.69 | 28.64 | 46.78 | 82.18 |
| 29 | 20 | 49 | 44.79 | 269.76 | 36.85 | 169 | 78 | 17.15 | 29.44 | 46.96 | 82.64 |
| 29 | 20 | 49 | 44.73 | 269.14 | 34.17 | 163 | 78 | 16.36 | 28.08 | 46.85 | 82.54 |
| 29 | 20 | 49 | 45.14 | 271.11 | 42.36 | 183 | 78 | 15.35 | 26.34 | 45.93 | 81.73 |
| 29 | 20 | 49 | 45.08 | 270.40 | 39.68 | 175 | 78 | 15.95 | 27.38 | 45.99 | 81.88 |
| 29 | 20 | 49 | 45.02 | 269.74 | 37.00 | 169 | 78 | 16.41 | 28.17 | 46.33 | 82.35 |
| 29 | 20 | 49 | 44.96 | 269.12 | 34.35 | 163 | 78 | 15.98 | 27.42 | 46.23 | 82.32 |
| 29 | 20 | 49 | 45.20 | 269.06 | 34.38 | 164 | 78 | 15.14 | 25.97 | 45.64 | 82.03 |
| 30 | 9 | 9 | 45.16 | 270.39 | 29.09 | 152 | 77 | .27 | .00 | 39.64 | 73.04 |
| 30 | 9 | 9 | 45.10 | 270.92 | 26.51 | 149 | 77 | .37 | .00 | 39.73 | 73.22 |
| 30 | 9 | 9 | 45.04 | 271.41 | 23.97 | 146 | 77 | .36 | .00 | 40.26 | 73.94 |
| 30 | 9 | 9 | 44.98 | 271.89 | 21.41 | 143 | 77 | .34 | .00 | 39.18 | 72.49 |
| 30 | 9 | 9 | 45.05 | 269.25 | 34.11 | 161 | 77***** | ***** | ***** | ***** | ***** |
| 30 | 9 | 9 | 44.99 | 269.82 | 31.52 | 156 | 77***** | ***** | ***** | ***** | ***** |
| 30 | 9 | 9 | 44.92 | 270.37 | 28.89 | 152 | 77***** | ***** | ***** | ***** | ***** |
| 30 | 9 | 9 | 44.86 | 270.88 | 26.34 | 149 | 77***** | ***** | ***** | ***** | ***** |
| 30 | 9 | 9 | 44.80 | 271.38 | 23.77 | 146 | 77***** | ***** | ***** | ***** | ***** |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|----|----|-------|--------|-------|------|---------|-------|-------|-------|-------|
| 30 | 9 | 9 | 44.74 | 271.85 | 21.21 | 143 | 77***** | ***** | ***** | ***** | ***** |
| 30 | 9 | 9 | 44.82 | 269.15 | 34.29 | 161 | 77 | .45 | .00 | 40.39 | 73.74 |
| 30 | 9 | 9 | 44.76 | 269.72 | 31.67 | 156 | 77 | .55 | .00 | 40.89 | 74.35 |
| 30 | 9 | 9 | 44.69 | 270.26 | 29.07 | 152 | 77 | .54 | .00 | 40.83 | 74.32 |
| 30 | 9 | 9 | 44.63 | 270.78 | 26.48 | 149 | 77 | .52 | .00 | 40.83 | 74.32 |
| 30 | 9 | 9 | 44.57 | 271.28 | 23.91 | 146 | 77 | .51 | .00 | 41.10 | 74.51 |
| 30 | 9 | 9 | 44.51 | 271.75 | 21.36 | 143 | 77 | .49 | .00 | 39.84 | 72.69 |
| 30 | 9 | 9 | 44.58 | 269.13 | 34.08 | 161 | 77 | .22 | .00 | 39.35 | 71.78 |
| 30 | 9 | 9 | 44.52 | 269.70 | 31.46 | 156 | 77 | .20 | .00 | 39.94 | 72.75 |
| 30 | 9 | 9 | 44.46 | 270.24 | 28.86 | 152 | 77 | .19 | .00 | 40.05 | 73.08 |
| 30 | 9 | 9 | 44.39 | 270.75 | 26.28 | 149 | 77 | .17 | .00 | 40.40 | 73.79 |
| 30 | 9 | 9 | 44.33 | 271.24 | 23.74 | 145 | 77 | .16 | .00 | 41.10 | 75.06 |
| 30 | 9 | 9 | 44.27 | 271.71 | 21.19 | 143 | 77 | .14 | .00 | 40.29 | 73.78 |
| 30 | 9 | 9 | 44.35 | 269.06 | 34.11 | 161 | 77 | .23 | .00 | 38.86 | 71.07 |
| 30 | 9 | 9 | 44.29 | 269.62 | 31.52 | 156 | 77 | .21 | .00 | 39.19 | 71.68 |
| 30 | 9 | 9 | 44.22 | 270.16 | 28.89 | 152 | 77 | .32 | .00 | 39.47 | 72.36 |
| 30 | 9 | 9 | 44.16 | 270.67 | 26.34 | 149 | 77 | .29 | .00 | 40.43 | 73.80 |
| 30 | 9 | 9 | 44.10 | 271.16 | 23.77 | 146 | 77 | .28 | .00 | 41.31 | 75.24 |
| 30 | 9 | 9 | 44.04 | 271.63 | 21.21 | 143 | 77 | .26 | .00 | 41.02 | 74.86 |
| 30 | 9 | 10 | 44.06 | 269.52 | 31.67 | 156 | 77 | .31 | .00 | 39.38 | 72.09 |
| 30 | 9 | 10 | 44.00 | 270.06 | 29.07 | 152 | 77 | .30 | .00 | 39.67 | 72.77 |
| 30 | 9 | 10 | 43.93 | 270.57 | 26.48 | 149 | 77 | .28 | .00 | 40.46 | 74.03 |
| 30 | 9 | 10 | 43.87 | 271.06 | 23.91 | 146 | 77 | .27 | .00 | 40.90 | 74.94 |
| 30 | 9 | 10 | 43.81 | 271.53 | 21.36 | 143 | 77 | .25 | .00 | 40.69 | 74.56 |
| 30 | 9 | 10 | 43.75 | 271.98 | 18.81 | 141 | 77 | .29 | .00 | 40.93 | 74.88 |
| 30 | 9 | 10 | 43.82 | 269.50 | 31.46 | 156 | 77 | .40 | .00 | 40.45 | 74.05 |
| 30 | 9 | 10 | 43.76 | 270.03 | 28.86 | 152 | 77 | .39 | .00 | 40.55 | 74.55 |
| 30 | 9 | 10 | 43.70 | 270.54 | 26.28 | 149 | 77 | .37 | .00 | 41.00 | 75.09 |
| 30 | 9 | 10 | 43.64 | 271.02 | 23.74 | 146 | 77 | .35 | .00 | 41.26 | 75.46 |
| 30 | 9 | 10 | 43.58 | 271.49 | 21.19 | 143 | 77 | .45 | .00 | 40.62 | 74.72 |
| 30 | 9 | 10 | 43.52 | 271.94 | 18.64 | 141 | 77 | .37 | .00 | 41.03 | 75.04 |
| 30 | 9 | 10 | 43.59 | 269.43 | 31.52 | 156 | 77 | -.05 | .00 | 40.87 | 74.57 |
| 30 | 9 | 10 | 43.53 | 269.96 | 28.92 | 152 | 77 | -.07 | .00 | 40.89 | 74.71 |
| 30 | 9 | 10 | 43.46 | 270.46 | 26.34 | 149 | 77 | -.11 | .00 | 41.24 | 75.25 |
| 30 | 9 | 10 | 43.40 | 270.95 | 23.77 | 146 | 77 | -.14 | .00 | 41.68 | 75.79 |
| 30 | 9 | 10 | 43.34 | 271.41 | 21.21 | 143 | 77 | -.17 | .00 | 41.12 | 74.87 |
| 30 | 9 | 10 | 43.28 | 271.86 | 18.67 | 141 | 77 | -.14 | .00 | 41.62 | 75.54 |
| 30 | 9 | 10 | 43.36 | 269.30 | 31.81 | 157 | 77 | -.92 | .00 | 40.71 | 74.09 |
| 30 | 9 | 10 | 43.30 | 269.83 | 29.21 | 153 | 77 | -.92 | .00 | 40.47 | 74.06 |
| 30 | 9 | 10 | 43.24 | 270.34 | 26.63 | 149 | 77 | -.93 | .00 | 40.83 | 74.42 |
| 30 | 9 | 10 | 43.18 | 270.82 | 24.06 | 146 | 77 | -.81 | .00 | 41.18 | 75.15 |
| 30 | 9 | 10 | 43.12 | 271.29 | 21.50 | 143 | 77 | -.81 | .00 | 40.54 | 74.41 |
| 30 | 9 | 10 | 43.06 | 271.74 | 18.95 | 141 | 77 | -.88 | .00 | 41.21 | 75.27 |
| 30 | 9 | 10 | 43.12 | 269.31 | 31.46 | 156 | 77***** | ***** | ***** | ***** | ***** |
| 30 | 9 | 10 | 43.06 | 269.84 | 28.86 | 152 | 77***** | ***** | ***** | ***** | ***** |
| 30 | 9 | 10 | 43.00 | 270.34 | 26.28 | 149 | 77***** | ***** | ***** | ***** | ***** |
| 30 | 9 | 10 | 42.94 | 270.81 | 23.74 | 146 | 77***** | ***** | ***** | ***** | ***** |
| 30 | 9 | 10 | 42.88 | 271.27 | 21.19 | 143 | 77***** | ***** | ***** | ***** | ***** |
| 30 | 9 | 10 | 42.82 | 271.72 | 18.64 | 141 | 77***** | ***** | ***** | ***** | ***** |
| 30 | 9 | 10 | 42.89 | 269.23 | 31.52 | 156 | 77 | .56 | .00 | 41.87 | 76.05 |
| 30 | 9 | 10 | 42.83 | 269.76 | 28.92 | 152 | 77 | .55 | .00 | 41.55 | 75.65 |
| 30 | 9 | 10 | 42.77 | 270.26 | 26.34 | 149 | 77 | .53 | .00 | 41.64 | 75.83 |
| 30 | 9 | 10 | 42.71 | 270.74 | 23.77 | 146 | 77 | .52 | .00 | 41.90 | 76.38 |
| 30 | 20 | 38 | 42.92 | 271.87 | 31.93 | 159 | 78 | 16.33 | 27.81 | 45.94 | 81.54 |
| 30 | 20 | 38 | 42.86 | 271.33 | 29.32 | 155 | 78 | 16.43 | 27.97 | 46.13 | 81.75 |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|----|----|-------|--------|-------|------|------|-------|-------|-------|-------|
| 30 | 20 | 38 | 42.80 | 270.82 | 26.73 | 151 | 78 | 16.39 | 27.91 | 45.87 | 81.43 |
| 30 | 20 | 38 | 42.75 | 270.33 | 24.15 | 148 | 78 | 17.55 | 29.91 | 45.09 | 80.25 |
| 30 | 20 | 38 | 43.15 | 271.77 | 31.75 | 159 | 78 | 16.59 | 28.26 | 45.39 | 82.41 |
| 30 | 20 | 38 | 43.09 | 271.23 | 29.14 | 155 | 78 | 16.12 | 27.43 | 45.41 | 82.31 |
| 30 | 20 | 38 | 43.03 | 270.72 | 26.55 | 151 | 78 | 15.75 | 26.81 | 44.80 | 81.00 |
| 30 | 20 | 38 | 42.97 | 270.23 | 23.98 | 148 | 78 | 16.35 | 27.84 | 43.68 | 79.15 |
| 30 | 20 | 38 | 42.92 | 269.76 | 21.42 | 145 | 78 | 17.17 | 29.26 | 42.77 | 77.50 |
| 30 | 20 | 38 | 42.86 | 269.30 | 18.87 | 143 | 78 | 15.45 | 26.28 | 43.97 | 79.75 |
| 30 | 20 | 38 | 43.37 | 271.65 | 31.51 | 158 | 78 | ***** | ***** | ***** | ***** |
| 30 | 20 | 38 | 43.31 | 271.12 | 28.91 | 154 | 78 | ***** | ***** | ***** | ***** |
| 30 | 20 | 38 | 43.26 | 270.60 | 26.32 | 151 | 78 | ***** | ***** | ***** | ***** |
| 30 | 20 | 38 | 43.20 | 270.12 | 23.78 | 147 | 78 | ***** | ***** | ***** | ***** |
| 30 | 20 | 38 | 43.14 | 269.65 | 21.22 | 145 | 78 | ***** | ***** | ***** | ***** |
| 30 | 20 | 38 | 43.09 | 269.19 | 18.67 | 142 | 78 | ***** | ***** | ***** | ***** |
| 30 | 20 | 38 | 43.61 | 271.63 | 31.72 | 159 | 78 | 22.83 | 39.03 | 44.97 | 80.10 |
| 30 | 20 | 38 | 43.55 | 271.09 | 29.11 | 154 | 78 | 18.79 | 32.05 | 45.08 | 80.60 |
| 30 | 20 | 38 | 43.49 | 270.58 | 26.53 | 151 | 78 | 16.63 | 28.33 | 44.48 | 79.52 |
| 30 | 20 | 38 | 43.44 | 270.08 | 23.95 | 148 | 78 | 16.86 | 28.72 | 43.34 | 77.61 |
| 30 | 20 | 38 | 43.38 | 269.61 | 21.39 | 145 | 78 | 17.55 | 29.92 | 42.70 | 76.31 |
| 30 | 20 | 38 | 43.32 | 269.15 | 18.84 | 143 | 78 | 15.57 | 26.51 | 44.16 | 78.90 |
| 30 | 20 | 38 | 43.84 | 271.57 | 31.72 | 159 | 78 | 28.15 | 48.24 | 44.06 | 78.81 |
| 30 | 20 | 38 | 43.78 | 271.02 | 29.11 | 154 | 78 | 22.21 | 37.94 | 44.60 | 79.73 |
| 30 | 20 | 38 | 43.73 | 270.51 | 26.53 | 151 | 78 | 16.36 | 27.86 | 44.60 | 79.77 |
| 30 | 20 | 38 | 43.67 | 270.01 | 23.95 | 148 | 78 | 17.16 | 29.25 | 42.60 | 76.38 |
| 30 | 20 | 38 | 43.61 | 269.54 | 21.42 | 145 | 78 | 18.20 | 31.03 | 42.13 | 75.70 |
| 30 | 20 | 38 | 43.55 | 269.08 | 18.84 | 143 | 78 | 15.49 | 26.37 | 44.11 | 79.24 |
| 30 | 20 | 38 | 44.07 | 271.47 | 31.54 | 158 | 78 | 29.78 | 51.05 | 42.40 | 78.05 |
| 30 | 20 | 38 | 44.01 | 270.92 | 28.94 | 154 | 78 | 23.02 | 39.34 | 43.29 | 79.67 |
| 30 | 20 | 38 | 43.95 | 270.40 | 26.35 | 151 | 78 | 14.70 | 25.00 | 43.91 | 80.49 |
| 30 | 20 | 38 | 43.90 | 269.91 | 23.81 | 147 | 78 | 15.76 | 26.82 | 41.21 | 76.05 |
| 30 | 20 | 38 | 43.84 | 269.44 | 21.25 | 145 | 78 | 17.75 | 30.26 | 40.48 | 74.81 |
| 30 | 20 | 38 | 44.36 | 271.98 | 34.20 | 163 | 78 | 30.57 | 52.40 | 41.99 | 77.08 |
| 30 | 20 | 38 | 44.30 | 271.41 | 31.60 | 158 | 78 | 30.20 | 51.77 | 42.23 | 77.28 |
| 30 | 20 | 38 | 44.25 | 270.87 | 29.00 | 154 | 78 | 23.21 | 39.67 | 43.47 | 79.39 |
| 30 | 20 | 38 | 44.19 | 270.35 | 26.41 | 151 | 78 | 14.67 | 24.94 | 44.61 | 81.23 |
| 30 | 20 | 38 | 44.13 | 269.85 | 23.84 | 147 | 78 | 13.48 | 22.90 | 42.78 | 78.33 |
| 30 | 20 | 38 | 44.07 | 269.37 | 21.28 | 145 | 78 | 16.20 | 27.59 | 40.83 | 74.70 |
| 30 | 20 | 38 | 44.59 | 271.93 | 34.23 | 163 | 78 | 29.95 | 51.34 | 42.49 | 76.21 |
| 30 | 20 | 38 | 44.54 | 271.35 | 31.60 | 158 | 78 | 31.23 | 53.56 | 42.65 | 76.37 |
| 30 | 20 | 38 | 44.48 | 270.80 | 29.00 | 154 | 78 | 23.99 | 41.03 | 43.98 | 78.83 |
| 30 | 20 | 38 | 44.42 | 270.28 | 26.41 | 151 | 78 | 16.27 | 27.70 | 45.29 | 81.19 |
| 30 | 20 | 38 | 44.36 | 269.78 | 23.84 | 147 | 78 | 13.77 | 23.39 | 44.86 | 80.40 |
| 30 | 20 | 38 | 44.31 | 269.30 | 21.30 | 145 | 78 | 14.58 | 24.79 | 42.91 | 77.14 |
| 30 | 20 | 38 | 44.83 | 271.90 | 34.37 | 163 | 78 | 28.06 | 48.09 | 42.50 | 76.34 |
| 30 | 20 | 38 | 44.77 | 271.31 | 31.75 | 159 | 78 | 31.00 | 53.16 | 42.31 | 75.91 |
| 30 | 20 | 38 | 44.71 | 270.76 | 29.14 | 154 | 78 | 24.00 | 41.04 | 43.72 | 78.41 |
| 30 | 20 | 38 | 44.66 | 270.24 | 26.55 | 151 | 78 | 16.87 | 28.74 | 45.30 | 80.89 |
| 30 | 20 | 38 | 44.60 | 269.74 | 24.01 | 148 | 78 | 15.08 | 25.65 | 45.56 | 81.12 |
| 30 | 20 | 38 | 44.54 | 269.25 | 21.45 | 145 | 78 | 14.11 | 23.98 | 44.13 | 78.97 |
| 30 | 20 | 38 | 45.06 | 271.79 | 34.17 | 163 | 78 | 30.50 | 52.29 | 41.85 | 75.35 |
| 30 | 20 | 38 | 45.00 | 271.21 | 31.57 | 158 | 78 | 29.88 | 51.23 | 42.17 | 75.34 |
| 30 | 20 | 38 | 44.94 | 270.66 | 28.97 | 154 | 78 | 21.81 | 37.27 | 43.59 | 77.82 |
| 30 | 20 | 38 | 44.88 | 270.13 | 26.38 | 151 | 78 | 16.70 | 28.44 | 44.90 | 80.13 |
| 30 | 20 | 38 | 44.83 | 269.63 | 23.81 | 147 | 78 | 16.09 | 27.40 | 45.08 | 80.23 |
| 30 | 20 | 38 | 44.77 | 269.14 | 21.25 | 145 | 78 | 14.77 | 25.12 | 44.09 | 78.73 |

Table 1. Continued.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|----|----|-------|--------|-------|------|------|-------|-------|-------|-------|
| 30 | 20 | 39 | 45.18 | 270.62 | 29.11 | 154 | 78* | ***** | ***** | ***** | ***** |
| 30 | 20 | 39 | 45.12 | 270.09 | 26.52 | 151 | 78* | ***** | ***** | ***** | ***** |
| 30 | 20 | 39 | 45.06 | 269.58 | 23.95 | 148 | 78* | ***** | ***** | ***** | ***** |
| 30 | 20 | 39 | 45.00 | 269.10 | 21.39 | 145 | 78* | ***** | ***** | ***** | ***** |
| 31 | 20 | 27 | 42.90 | 271.56 | 16.27 | 140 | 78 | 21.67 | 37.34 | 38.84 | 70.11 |
| 31 | 20 | 27 | 42.84 | 271.13 | 13.74 | 139 | 78 | 21.89 | 37.72 | 38.66 | 69.68 |
| 31 | 20 | 27 | 42.79 | 270.71 | 11.21 | 137 | 78 | 24.54 | 42.29 | 37.97 | 68.40 |
| 31 | 20 | 27 | 42.73 | 270.30 | 8.72 | 136 | 78 | 28.99 | 49.99 | 37.61 | 67.79 |
| 31 | 20 | 27 | 43.19 | 271.93 | 18.84 | 142 | 78 | 22.26 | 38.37 | 36.59 | 65.81 |
| 31 | 20 | 27 | 43.13 | 271.50 | 16.33 | 141 | 78 | 21.88 | 37.71 | 38.03 | 68.40 |
| 31 | 20 | 27 | 43.08 | 271.06 | 13.79 | 139 | 78 | 24.59 | 42.38 | 36.64 | 66.10 |
| 31 | 20 | 27 | 43.02 | 270.64 | 11.27 | 138 | 78 | 30.55 | 52.71 | 35.25 | 63.44 |
| 31 | 20 | 27 | 42.96 | 270.23 | 8.75 | 136 | 78 | 35.95 | 62.05 | 35.58 | 63.72 |
| 31 | 20 | 27 | 42.90 | 269.82 | 6.23 | 136 | 78 | 38.99 | 67.29 | 35.74 | 63.68 |
| 31 | 20 | 27 | 42.84 | 269.42 | 3.72 | 135 | 78 | 46.49 | 80.25 | 34.82 | 62.21 |
| 31 | 20 | 27 | 42.78 | 269.00 | 1.24 | 135 | 78 | 51.94 | 89.67 | 35.09 | 62.56 |
| 31 | 20 | 27 | 43.42 | 271.87 | 18.90 | 143 | 78 | 20.31 | 35.01 | 38.23 | 68.47 |
| 31 | 20 | 27 | 43.37 | 271.43 | 16.36 | 141 | 78 | 24.32 | 41.93 | 36.45 | 65.95 |
| 31 | 20 | 27 | 43.31 | 270.99 | 13.82 | 139 | 78 | 32.48 | 56.04 | 33.58 | 60.69 |
| 31 | 20 | 27 | 43.25 | 270.57 | 11.30 | 138 | 78 | 38.09 | 65.73 | 34.54 | 62.29 |
| 31 | 20 | 27 | 43.19 | 270.15 | 8.78 | 136 | 78 | 42.54 | 73.43 | 35.31 | 63.29 |
| 31 | 20 | 27 | 43.13 | 269.74 | 6.26 | 136 | 78 | 48.18 | 83.18 | 34.33 | 61.39 |
| 31 | 20 | 27 | 43.07 | 269.34 | 3.74 | 135 | 78 | 51.41 | 88.76 | 34.89 | 62.00 |
| 31 | 20 | 27 | 43.65 | 271.78 | 18.81 | 142 | 78 | 22.43 | 38.66 | 37.91 | 68.36 |
| 31 | 20 | 27 | 43.60 | 271.33 | 16.27 | 140 | 78 | 31.89 | 55.03 | 33.69 | 61.09 |
| 31 | 20 | 27 | 43.54 | 270.90 | 13.74 | 139 | 78 | 38.74 | 66.87 | 33.34 | 60.26 |
| 31 | 20 | 27 | 43.48 | 270.48 | 11.21 | 137 | 78 | 42.69 | 73.69 | 33.78 | 60.84 |
| 31 | 20 | 27 | 43.42 | 270.06 | 8.72 | 136 | 78 | 49.28 | 85.08 | 32.29 | 57.93 |
| 31 | 20 | 27 | 43.36 | 269.65 | 6.20 | 136 | 78 | 53.27 | 91.96 | 32.79 | 58.41 |
| 31 | 20 | 27 | 43.30 | 269.25 | 3.69 | 135 | 78 | 52.94 | 91.41 | 34.49 | 61.42 |
| 31 | 20 | 27 | 43.89 | 271.71 | 18.84 | 142 | 78* | ***** | ***** | ***** | ***** |
| 31 | 20 | 27 | 43.83 | 271.27 | 16.33 | 140 | 78* | ***** | ***** | ***** | ***** |
| 31 | 20 | 27 | 43.77 | 270.83 | 13.79 | 139 | 78* | ***** | ***** | ***** | ***** |
| 31 | 20 | 27 | 43.71 | 270.41 | 11.27 | 137 | 78* | ***** | ***** | ***** | ***** |
| 31 | 20 | 27 | 43.65 | 269.99 | 8.75 | 136 | 78* | ***** | ***** | ***** | ***** |
| 31 | 20 | 27 | 43.59 | 269.57 | 6.23 | 136 | 78* | ***** | ***** | ***** | ***** |
| 31 | 20 | 27 | 43.53 | 269.17 | 3.72 | 135 | 78* | ***** | ***** | ***** | ***** |
| 31 | 20 | 27 | 44.12 | 271.63 | 18.81 | 142 | 78 | 32.62 | 56.30 | 34.52 | 61.93 |
| 31 | 20 | 27 | 44.06 | 271.18 | 16.27 | 140 | 78 | 36.63 | 63.22 | 34.23 | 61.56 |
| 31 | 20 | 27 | 44.00 | 270.74 | 13.74 | 139 | 78 | 42.77 | 73.84 | 31.78 | 57.20 |
| 31 | 20 | 27 | 43.94 | 270.32 | 11.21 | 137 | 78 | 47.79 | 82.50 | 31.00 | 56.01 |
| 31 | 20 | 27 | 43.88 | 269.90 | 8.69 | 136 | 78 | 51.65 | 89.18 | 32.56 | 58.33 |
| 31 | 20 | 27 | 43.82 | 269.48 | 6.17 | 136 | 78 | 55.04 | 95.03 | 34.37 | 61.04 |
| 31 | 20 | 27 | 43.76 | 269.07 | 3.66 | 135 | 78 | 54.01 | 93.25 | 35.54 | 62.84 |
| 31 | 20 | 27 | 44.35 | 271.56 | 18.81 | 142 | 78 | 38.52 | 66.48 | 34.34 | 62.15 |
| 31 | 20 | 27 | 44.29 | 271.10 | 16.27 | 140 | 78 | 41.94 | 72.38 | 33.52 | 60.60 |
| 31 | 20 | 27 | 44.23 | 270.67 | 13.74 | 139 | 78 | 47.25 | 81.56 | 32.56 | 58.77 |
| 31 | 20 | 27 | 44.17 | 270.24 | 11.21 | 137 | 78 | 50.84 | 87.77 | 33.08 | 59.46 |
| 31 | 20 | 27 | 44.12 | 269.82 | 8.72 | 136 | 78 | 53.52 | 92.39 | 33.85 | 60.50 |
| 31 | 20 | 27 | 44.06 | 269.40 | 6.20 | 136 | 78 | 55.96 | 96.61 | 34.79 | 61.96 |
| 31 | 20 | 27 | 44.64 | 271.95 | 21.39 | 145 | 78 | 39.68 | 68.48 | 33.99 | 61.33 |
| 31 | 20 | 27 | 44.58 | 271.49 | 18.84 | 142 | 78 | 44.10 | 76.12 | 33.68 | 60.34 |
| 31 | 20 | 27 | 44.52 | 271.04 | 16.33 | 140 | 78 | 47.16 | 81.41 | 33.29 | 59.98 |
| 31 | 20 | 27 | 44.46 | 270.60 | 13.79 | 139 | 78 | 49.98 | 86.28 | 32.94 | 59.50 |
| 31 | 20 | 27 | 44.41 | 270.16 | 11.27 | 137 | 78 | 53.46 | 92.29 | 32.60 | 58.73 |

Table 1. Concluded.

| D | H | M | LAT | LONG | ZENAN | PXLN | PXWD | FSWRD | USWRD | FLWRD | ULWRD |
|----|----|----|-------|--------|-------|------|------|-------|--------|-------|-------|
| 31 | 20 | 27 | 44.35 | 269.74 | 8.75 | 136 | 78 | 56.01 | 96.71 | 33.11 | 59.57 |
| 31 | 20 | 27 | 44.29 | 269.32 | 6.23 | 136 | 78 | 57.75 | 99.70 | 34.74 | 62.16 |
| 31 | 20 | 28 | 44.88 | 271.97 | 21.91 | 145 | 78 | 40.43 | 69.79 | 34.81 | 62.57 |
| 31 | 20 | 28 | 44.82 | 271.50 | 19.35 | 143 | 78 | 45.81 | 79.07 | 33.18 | 59.78 |
| 31 | 20 | 28 | 44.77 | 271.05 | 16.81 | 141 | 78 | 48.87 | 84.36 | 32.97 | 59.42 |
| 31 | 20 | 28 | 44.71 | 270.60 | 14.28 | 139 | 78 | 50.98 | 88.01 | 31.66 | 57.36 |
| 31 | 20 | 28 | 44.65 | 270.17 | 11.75 | 138 | 78 | 54.70 | 94.43 | 31.14 | 56.28 |
| 31 | 20 | 28 | 44.59 | 269.74 | 9.23 | 137 | 78 | 57.25 | 98.85 | 31.74 | 57.30 |
| 31 | 20 | 28 | 44.53 | 269.32 | 6.71 | 136 | 78 | 58.51 | 101.02 | 33.55 | 60.15 |
| 31 | 20 | 28 | 45.11 | 271.84 | 21.59 | 145 | 78 | 41.31 | 71.30 | 35.67 | 64.07 |
| 31 | 20 | 28 | 45.05 | 271.37 | 19.04 | 143 | 78 | 45.85 | 79.15 | 33.88 | 61.14 |
| 31 | 20 | 28 | 44.99 | 270.91 | 16.50 | 141 | 78 | 48.20 | 83.22 | 32.71 | 59.03 |
| 31 | 20 | 28 | 44.93 | 270.47 | 13.96 | 139 | 78 | 50.79 | 87.68 | 30.53 | 55.63 |
| 31 | 20 | 28 | 44.87 | 270.03 | 11.44 | 137 | 78 | 55.22 | 95.33 | 29.66 | 53.96 |
| 31 | 20 | 28 | 44.81 | 269.61 | 8.94 | 136 | 78 | 58.25 | 100.57 | 31.04 | 56.32 |
| 31 | 20 | 28 | 44.75 | 269.19 | 6.43 | 136 | 78 | 56.07 | 96.80 | 32.76 | 58.90 |
| 31 | 20 | 28 | 45.17 | 270.44 | 14.25 | 139 | 78 | 51.25 | 88.47 | 29.33 | 53.91 |
| 31 | 20 | 28 | 45.11 | 270.00 | 11.72 | 138 | 78 | 54.36 | 93.86 | 28.55 | 52.54 |
| 31 | 20 | 28 | 45.05 | 269.57 | 9.20 | 137 | 78 | 55.74 | 96.23 | 30.72 | 56.20 |
| 31 | 20 | 28 | 44.99 | 269.14 | 6.68 | 136 | 78 | 52.85 | 91.23 | 32.09 | 58.66 |



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